SIEMENS

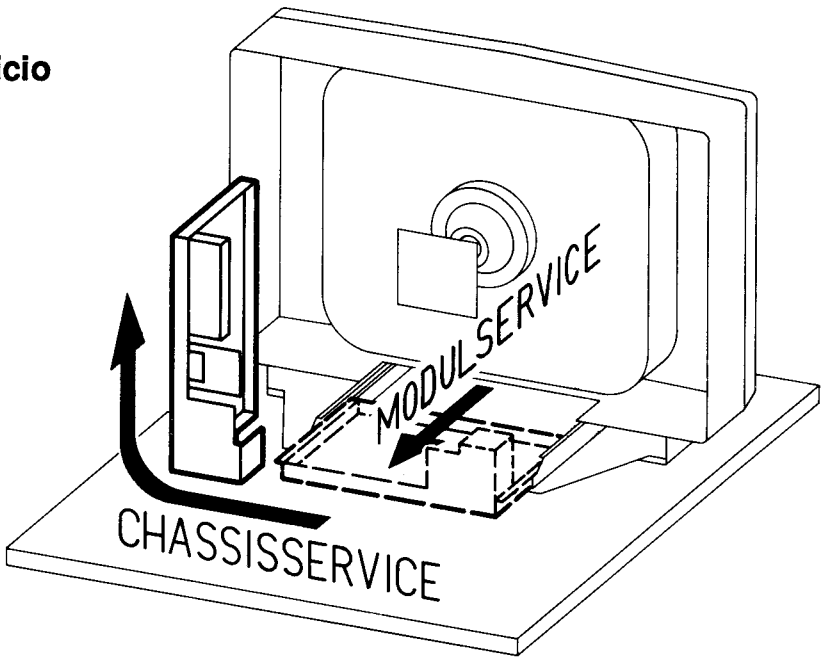
Farbfernsehgeräte FS 967
Color TV
Televisore a colori FS 977

Kurzfassung der Serviceschrift für Grundchassis
Service manual for basis chassis
Istruzioni d'assistenza il telaio

CS 8901

Bedienteil • Control unit • Sezione di comando **P 51**

Servicestellung
Service position
Posizione di servicio



Diese Geräte tragen das VDE-Zeichen und erfüllen daher die einschlägigen VDE-Bestimmungen. Um die Sicherheit der Geräte zu erhalten, müssen die mit einem Symbol in den Kundendienst Unterlagen gekennzeichneten Bauelemente durch Originalteile ersetzt werden.
Wichtig ist auch, daß Bauelemente in gleicher Lage wieder eingesetzt werden.

Achtung! Nach optimalen Einstellungen im Bildröhrenwerk bilden Bildröhre und Ablenksystem eine festverbundene Einheit.
Es erlischt die Bildröhrengarantie, wenn
- die Lage des Ablenksystems oder der Korrekturmagnete verändert wird.
- Befestigungsmuttern oder Versiegelungen gelöst werden.

These sets are provided with the VDE sign, thus fulfilling the VDE regulations. In order to maintain the savety of the sets, the components marked with a suchlike symbol in the service manuals must be replaced by original parts.
It is also important that components are placed in the same position.

Note! After optimum adjustments in the picture tube factory, picture tube and deflection yoke represent a firmly connected unit.
Picture tube warranty is expiring in case
- the position of the deflection yoke or the correction magnets is changed,
- mounting nuts or sealings are loosened.

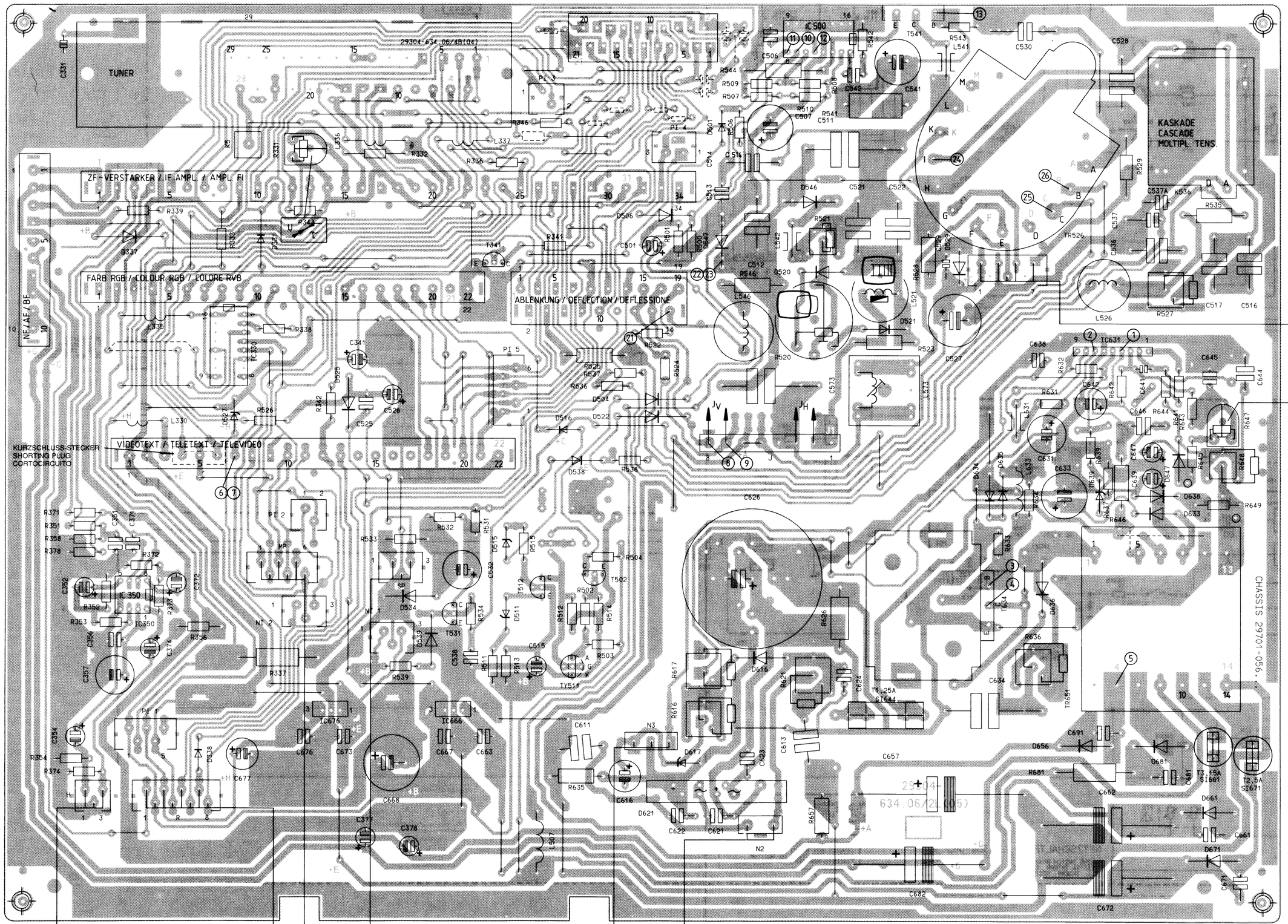
Gli apparechi sono contrassegnati con il marchio VDE e quindi corrispondono a queste norme. Per garantire la sicurezza degli apparecchi, i componenti contrassegnati con il simbolo riportato a destra e rilevabile dalle istruzioni di manutenzione, devono essere sostituiti con componenti originali.
E'importante che i componenti vengano inserti di nuovo nella loro posizione originale.

Attenzione: Dopo la regolazione ottimale effettuata in sede di fabbricazione il cinescopio ed il giogo di deflessione formano un sistema unico. E'quind vietato:
- spostare i componenti i posti sul collo del cinescopio.
- allentare le viti di tali componenti.

Änderungen vorbehalten
Modification reserved
Con riserva di modifiche

Inhaltsverzeichnis	Seite	Table of contents	Page	Indicate	Pagina
Druckplatten	3 - 5	Printed circuit boards	3 - 5	Piastre stampate	3 - 5
Bedieneinheit	6 - 8	Keyboard	6 - 8	Unita commando	6 - 8
Hauptschaltplan	9 - 13	General circuit diagram	9 - 13	Schema generale	9 - 13
IR - Geber	14 - 15	IR - Remote control	14 - 15	IR - Telecomando	14 - 15
Kabel - Tuner	16 - 18	Cable TV tuner	16 - 18	Tuner TV cavo	16 - 18
ZF - Verstärker/Sync.	19 - 21	IF amplifier/Sync.	19 - 21	Amplificatore FI/Sinc.	19 - 21
Euro - AV Buchsenplatte	22	Euro - AV socket board	22	Piastra Euro - AV	22
Euro - AV Buchsenplatte S-VHS	23 - 24	Euro - AV socket board S-VHS	23 - 24	Piastra Euro - AV S-VHS	23 - 24
Farb - RGB	25 - 28	Colour RGB	25 - 28	Colore RVB	25 - 28
Farb - RGB S-VHS	29 - 32	Colour RGB S-VHS	29 - 32	Colore RVB S-VHS	29 - 32
Ablenkung (28"/25")	33 - 34	Deflection (28"/25")	33 - 34	Deflessione (28"/25")	33 - 34
NF - Endstufe 2x20W	35 - 36	AF - Output stage 2x20W	35 - 36	Stadio finale BF 2x20W	35 - 36
Videotext FZ 908 V 1	37 - 39	Teletext FZ 908 V 1	37 - 39	Televideo FZ 908 V 1	37 - 39

BUCHSENPLATTE
SOCKET BOARD
PIASTRA PRESE

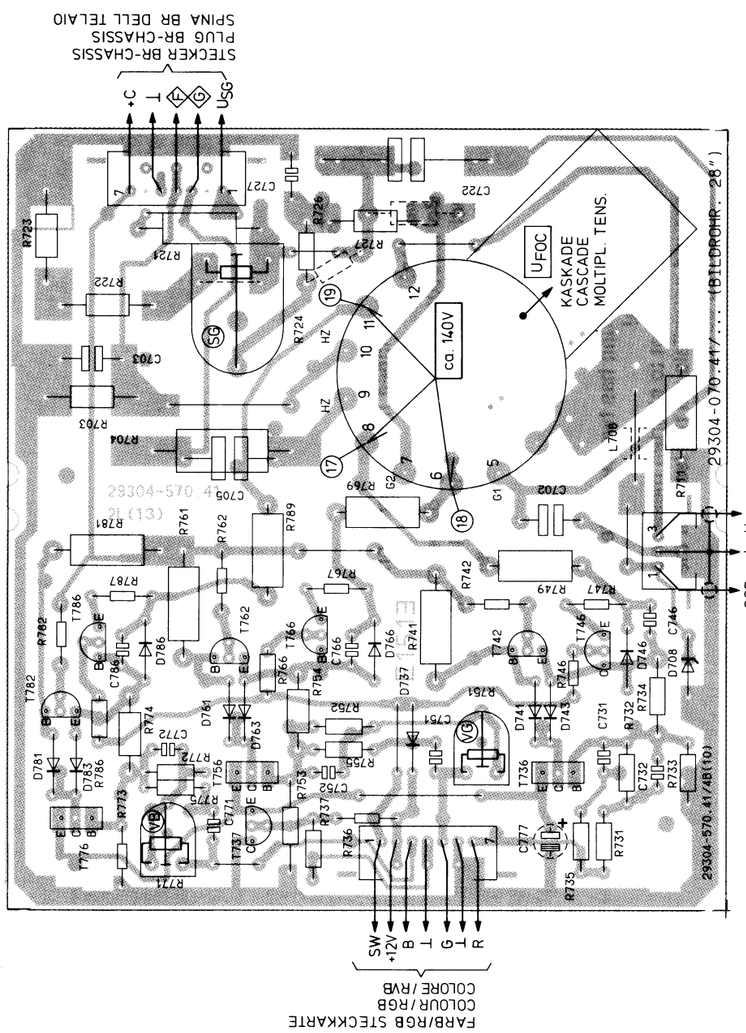


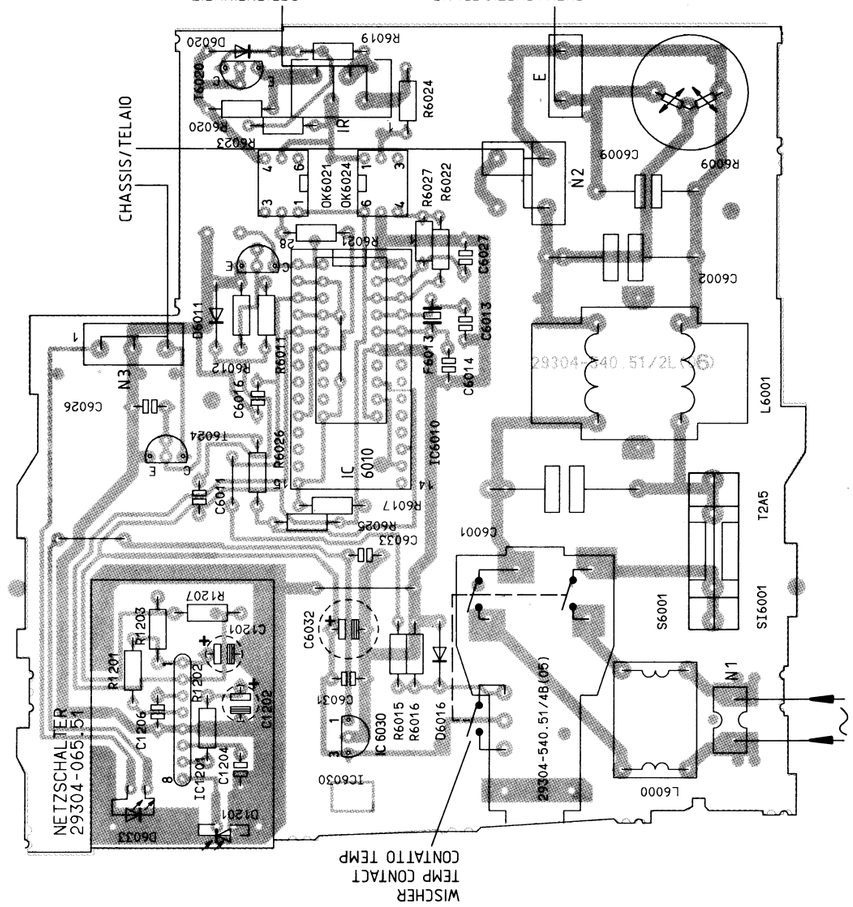
KOPFHÖRERBUCHSE
HEAD PHONE SOCKET
PRESA CUFFIA

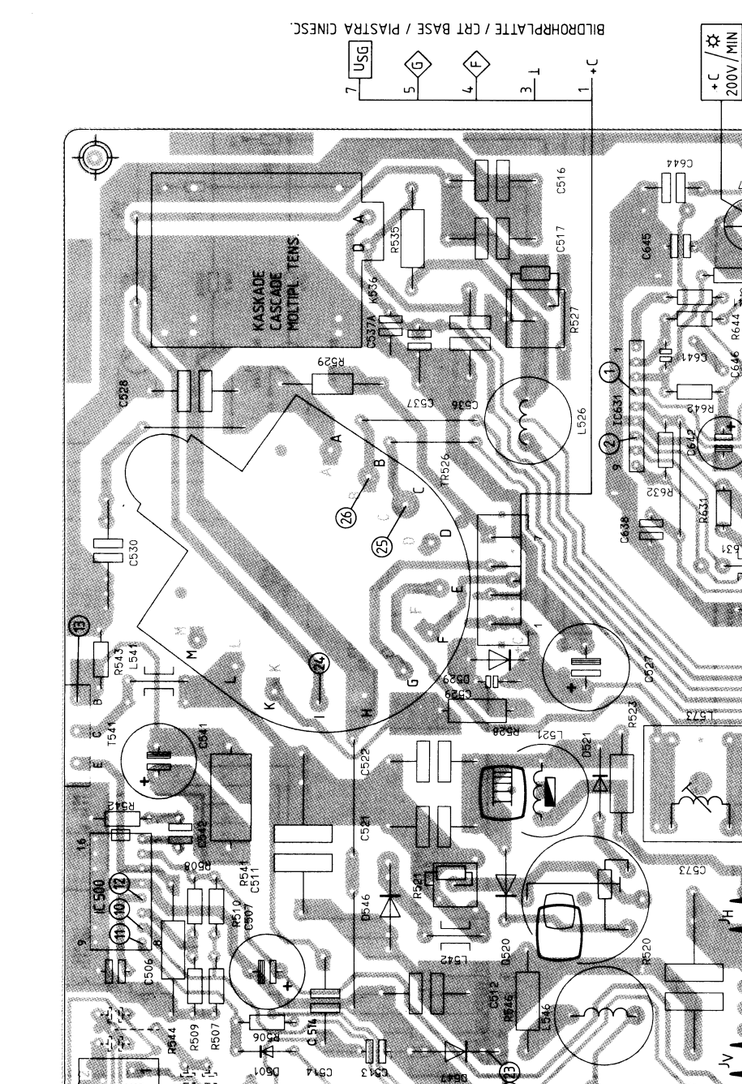
BEDIENEINHEIT
CONTROL UNIT
UNITA DI COMANDO

1 | 2 | 3
UG1 | ⊥ | SSB
BILDROHRPLATTE / CRT BASE / PIASTRA CINESC.

NETZSCHALTEREINHEIT
MAINS SWITCH UNIT
UNITA INTERR. DE RETE


STECKER BR-CHASSIS
PLUG BR-CHASSIS
SPINA BR DELL TELAIO
+C
T
UG1
USG
KASKADE
CASCADE
MOLTIPL. TENS.
UFOC
ca. 140V
29304-570.41/...
SSB
STECKER-SP CHASSIS
PLUG SP CHASSIS
SPINA SP DELL TELAIO
FARB/RGB STECKKARTE
COLOUR/RGB
COLORE/RVB
SW
+12V
B
T
G
T
R


ENTMAGNETISIERUNG
DEGAUSING
SMAGNETIZZAZIONE
BEDIENEINHEIT
CONTROL UNIT
UNITA DI COMANDO
CHASSIS/TELAIO
WISCHER
TEMP CONTACT
CONTATTO TEMP
NETZSCHALTER
29304-065.51
29304-540.51/2L(06)
29304-540.51/4B(05)


BILDROHRPLATTE / CRT BASE / PIASTRA CINESC.
+C / 200V / MIN
CHASSIS 29701-056..
KASKADE
CASCADE
MOLTIPL. TENS
BUCHSENPLATTE
SOCKET BOARD
PIASTRA PRESE
NETZSCHALTERINHEIT
MAINS SWITCH UNIT
UNITA INTERR. DE RETE

D

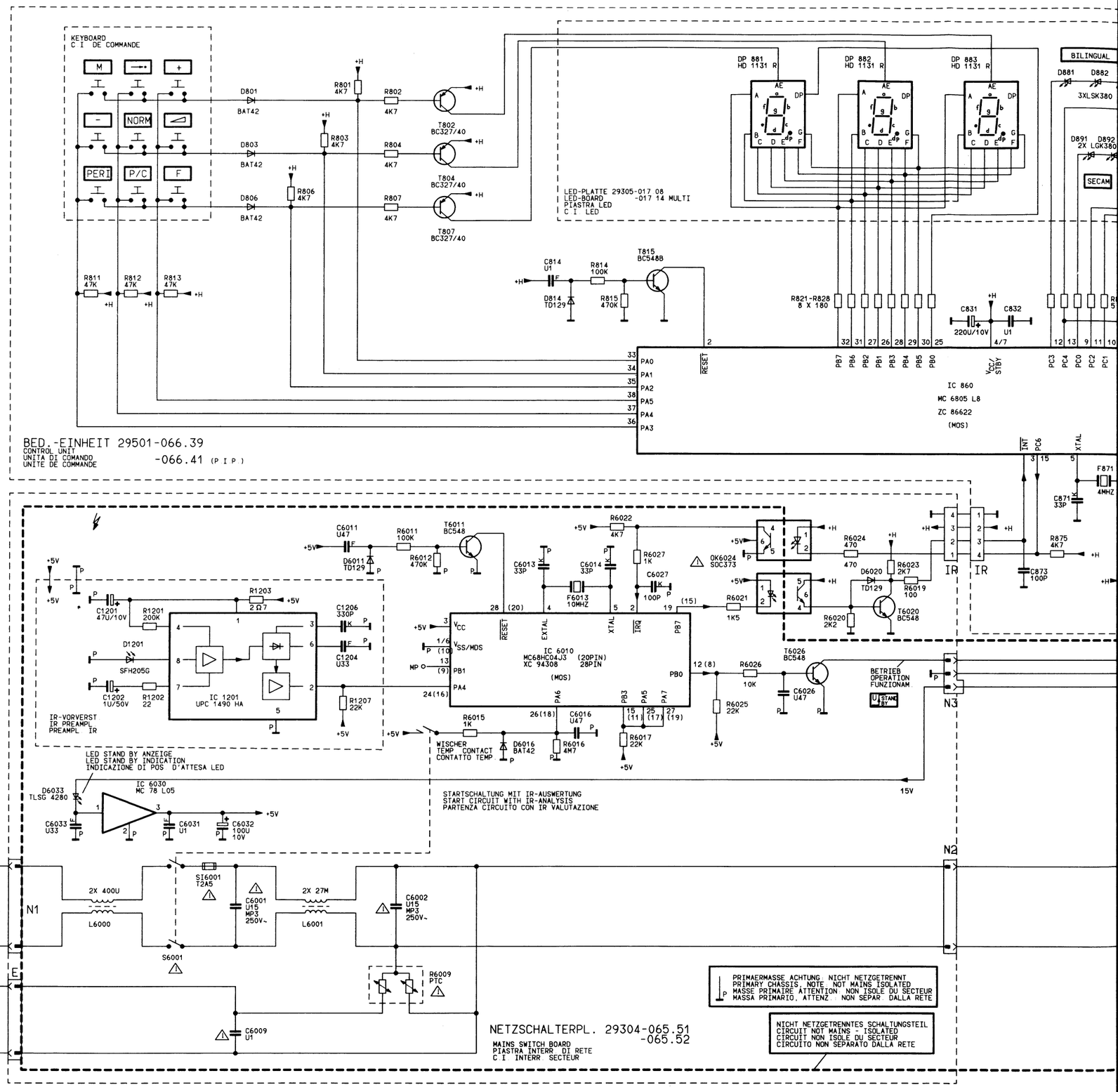
Diese Bedieneinheit hat zwei getrennte Massen!
Bei Messungen ist unbedingt darauf zu achten, daß diese beiden Potentiale nicht über Meßgeräte kurzgeschlossen werden!

GB

This control unit has two separate ground connections!
Be cautious not to shorten these two ground potentials via the leads of the measuring device!

I

Questa unità di comando ha due masse separate!
Durante le misure occorre assolutamente osservare, che i due potenziali non vengano corto circuitati tramite gli apparechi di missura!



KEYBOARD
C I DE COMMANDE

M | NORM | PERI | P/C | F | -

D801 D803 D806 BAT42

R801 R802 R803 R804 R806 R807 4K7

T802 T804 T807 BC327/40

R811 R812 R813 4K7

LED-PLATTE 29305-017 08
LED-BOARD -017 14 MULTI
PIASTRA LED
C I LED

DP 881 DP 882 DP 883 HD 1131 R

BILINGUAL D881 D882 D883 3XLSK380

STEREO D884 D886 D887 3X LSK380

D852 ZPD2V7

D851 ZPD4V7 +B

(MULTI) D895 D896 2X LGK380

D891 D892 2X LGK380 SECAM

D893 D894 2X LGK380 PAL

NTSC

C814 U1 R814 100K T815 BC548B D814 TD129 R815 470K

R821-R828 8 X 180

C831 220U/10V C832 U1 4/7

R831-R835 5 X 560 D831 TD129

R836 1K

R861 R862 4K7

ZUM CHASSIS
TO CHASSIS
AL TELAIO
VERS CHASSIS

ICL TE U 50/60HZ U EURO AV

R

R863 47K R864 33K C866 U1 D863 TD129

NO

D876 D877 ZPD2V7 R876 R877 4K7

U SECAM U PAL

ZUM FARB/RGB
TO COLOUR/RGB
AL MOD COLORE/RVB
VERS MOD DECODEUR/RVB

MP

R873 R874 4K7

R878 R872 R879 4K7

ENA ZF SCL VT SDA SDA VT SCL

IC 860
MC 6805 L8
ZC 86622
(MOS)

RESET PA0 PA1 PA2 PA5 PA4 PA3 PB7 PB6 PB2 PB1 PB3 PB4 PB5 PB0 VCC/STBY PC3 PC4 PC0 PC2 PC1 PC7 PD0 PA7 PC5 PA6 PD4 INT PC6 XTAL EXTAL VSS PD6 PD3 PD7 PD1 PD2 PD5

F871 4MHZ C871 33P C872 33P C873 100P R875 4K7

IR

D.-EINHEIT 29501-066.39
ROL UNIT
A DI COMANDO -066.41 (PIP)
E DE COMMANDE

C6011 U47 R6011 100K R6012 470K T6011 BC548 D6011 TD129

R6022 4K7 C6013 33P C6014 33P F6013 10MHZ R6027 1K C6027 100P

OK6024 SOC373 R6024 470 R6023 2K7 D6020 TD129 R6019 100 R6021 1K5 R6020 2K2 T6020 BC548

T6026 BC548 R6026 10K C6026 U47

BETRIEB
OPERATION
FUNZIONAM
U STAND BY

N3

IC 6010
MC68HC04J3 (20PIN)
XC 94308 28PIN
(MOS)

R6025 22K

R6015 1K D6016 BAT42 R6016 4M7 C6016 U47 R6017 22K

WISCHER
TEMP CONTACT
CONTATTO TEMP

C1201 47U/10V R1201 200K R1203 2Ω7 C1206 330P C1204 U33 R1207 22K C1202 1U/50V R1202 22 D1201 SFH205G IC 1201 UPC 1490 HA

IR-VORVERST
IR PREAMPL
PREAMPL IR

LED STAND BY ANZEIGE
LED STAND BY INDICATION
INDICAZIONE DI POS D'ATTESA LED

D6033 G 4280 IC 6030 MC 78 L05 C6033 U33 C6031 U1 C6032 100U 10V

STARTSCHALTUNG MIT IR-AUSWERTUNG
START CIRCUIT WITH IR-ANALYSIS
PARTENZA CIRCUITO CON IR VALUTAZIONE

15V

N2

SI6001 T2A5 C6001 U15 MP3 250V~ C6002 U15 MP3 250V~ 2X 400U L6000 2X 27M L6001 S6001 R6009 PTC C6009 U1

PRIMAERMASSE ACHTUNG NICHT NETZGETRENNT
PRIMARY CHASSIS, NOTE NOT MAINS ISOLATED
MASSE PRIMAIRE ATTENTION NON ISOLE DU SECTEUR
MASSA PRIMARIO, ATTENZ. NON SEPAR. DALLA RETE

NICHT NETZGETRENNTES SCHALTUNGSTEIL
CIRCUIT NOT MAINS - ISOLATED
CIRCUIT NON ISOLE DU SECTEUR
CIRCUITO NON SEPARATO DALLA RETE

NETZSCHALTERPL. 29304-065.51
-065.52
MAINS SWITCH BOARD
PIASTRA INTERR. DI RETE
C.I. INTERR. SECTEUR

TUNER 29504-101.06

ZF-SYNC. 29504-102.12
IF SYNC
SINCR FI

BUCHSENPL. 29304-060.58 -060.62 S-VHS
SOCKET BOARD
PIASTRA PRESE
C I PRISES

VIDEOTEXT 29504-108.08
TELETEXT
TELEVIDEO

ABLENKUNG 29504-107.73 -107.74
DEFLECTION
DEFLESSIONE
BASES DE TEMPS

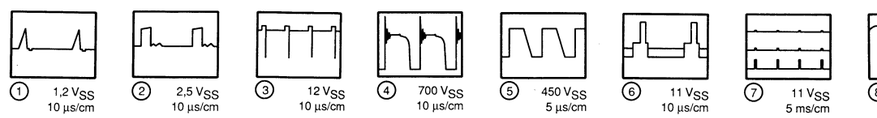
IC631 TDA 4601

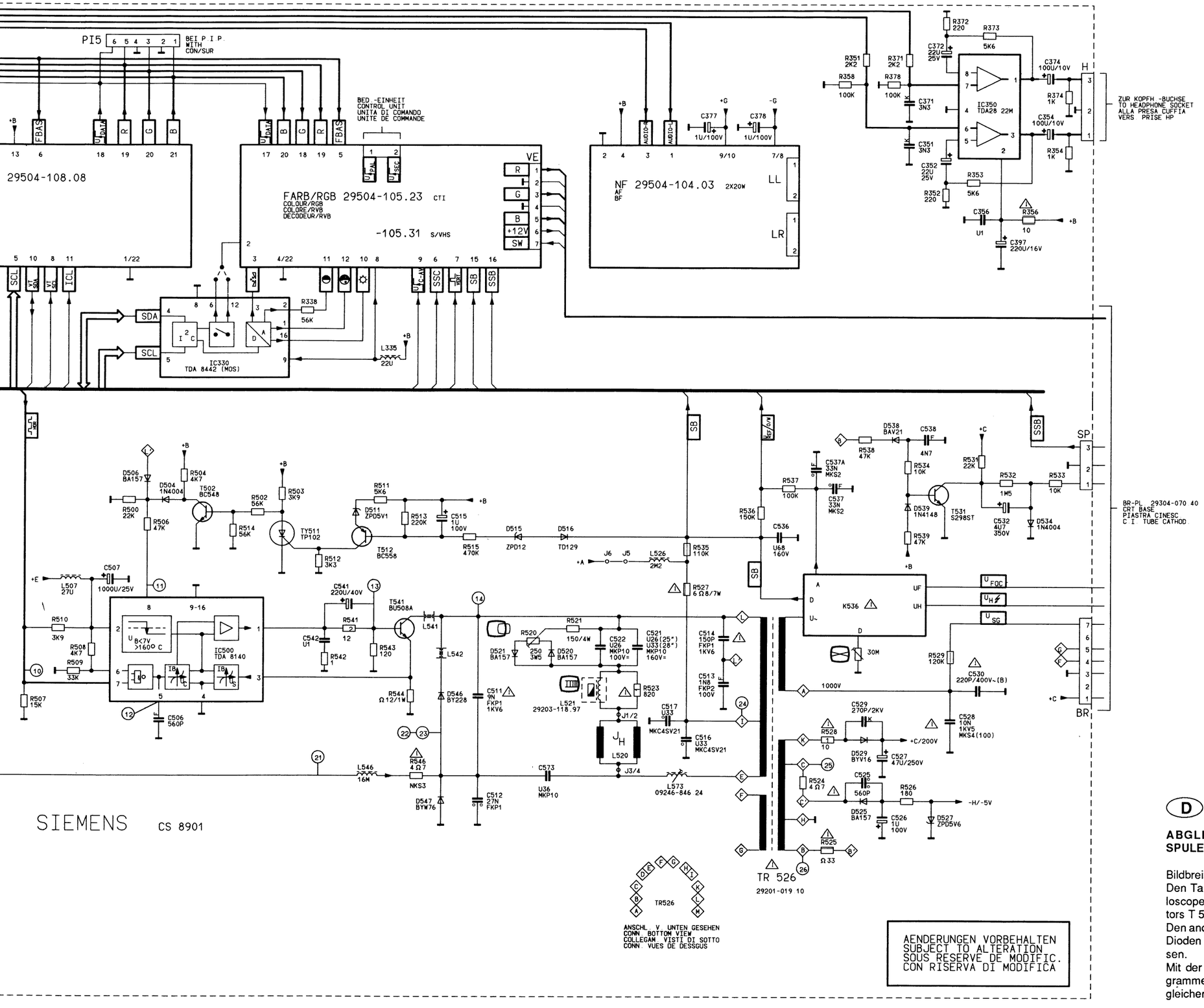
NICHT NETZGETRENNTES SCHALTUNGSTEIL
CIRCUIT NOT MAINS - ISOLATED
CIRCUIT NON ISOLE DU SECTEUR
CIRCUITO NON SEPARATO DALLA RETE

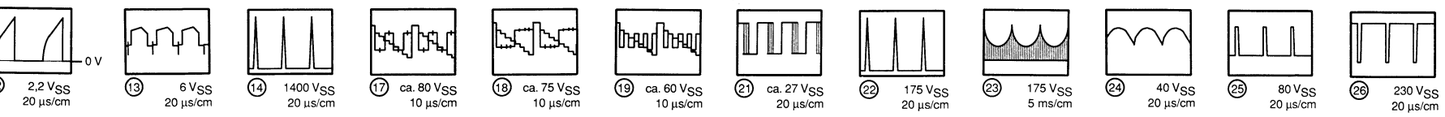
PRIMAERMASSE ACHTUNG NICHT NETZGETRENNT
PRIMARY CHASSIS NOTE NOT MAINS ISOLATED
MASSE PRIMAIRE ATTENTION NON ISOLE DU SECTEUR
MASSA PRIMARIO ATTENZ NON SEPAR DALLA RETE

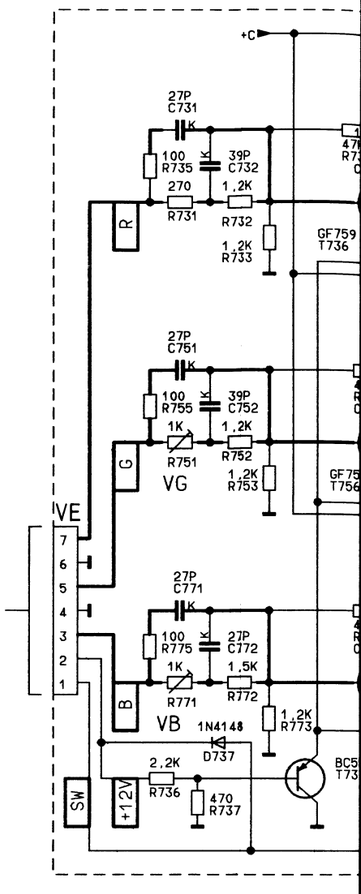
TR651 29500-609 61 2X20W -609 62 2X35W

SIEMENS CS


1 1,2 Vss 10 µs/cm
2 2,5 Vss 10 µs/cm
3 12 Vss 10 µs/cm
4 700 Vss 10 µs/cm
5 450 Vss 5 µs/cm
6 11 Vss 10 µs/cm
7 11 Vss 5 ms/cm
8 2,8 Vss 5 ms/cm
9 45 Vss 5 ms/cm
10 11 Vss 20 µs/cm
11 16 Vss 20 µs/cm
12 2,2 Vss 20 µs/cm
13 6 Vss 20 µs/cm
14




0 V
13 6 VSS 20 µs/cm
14 1400 VSS 20 µs/cm
17 ca. 80 VSS 10 µs/cm
18 ca. 75 VSS 10 µs/cm
19 ca. 60 VSS 10 µs/cm
21 ca. 27 VSS 20 µs/cm
22 175 VSS 20 µs/cm
23 175 VSS 5 ms/cm
24 40 VSS 20 µs/cm
25 80 VSS 20 µs/cm
26 230 VSS 20 µs/cm



D

ABGLEICH DER BRÜCKEN-SPULE L 573

Bildbreite auf Minimum einstellen.
Den Tastkopf eines Zweistrahloszilloscopes am Kollektor des Transistors T 541 (BU 508 A) einhängen.
Den anderen Tastkopf zwischen den Dioden D 546 und D 547 anschliessen.
Mit der Spule L 573 beide Oszillogramme auf gleiche Impulsbreite abgleichen.

GB

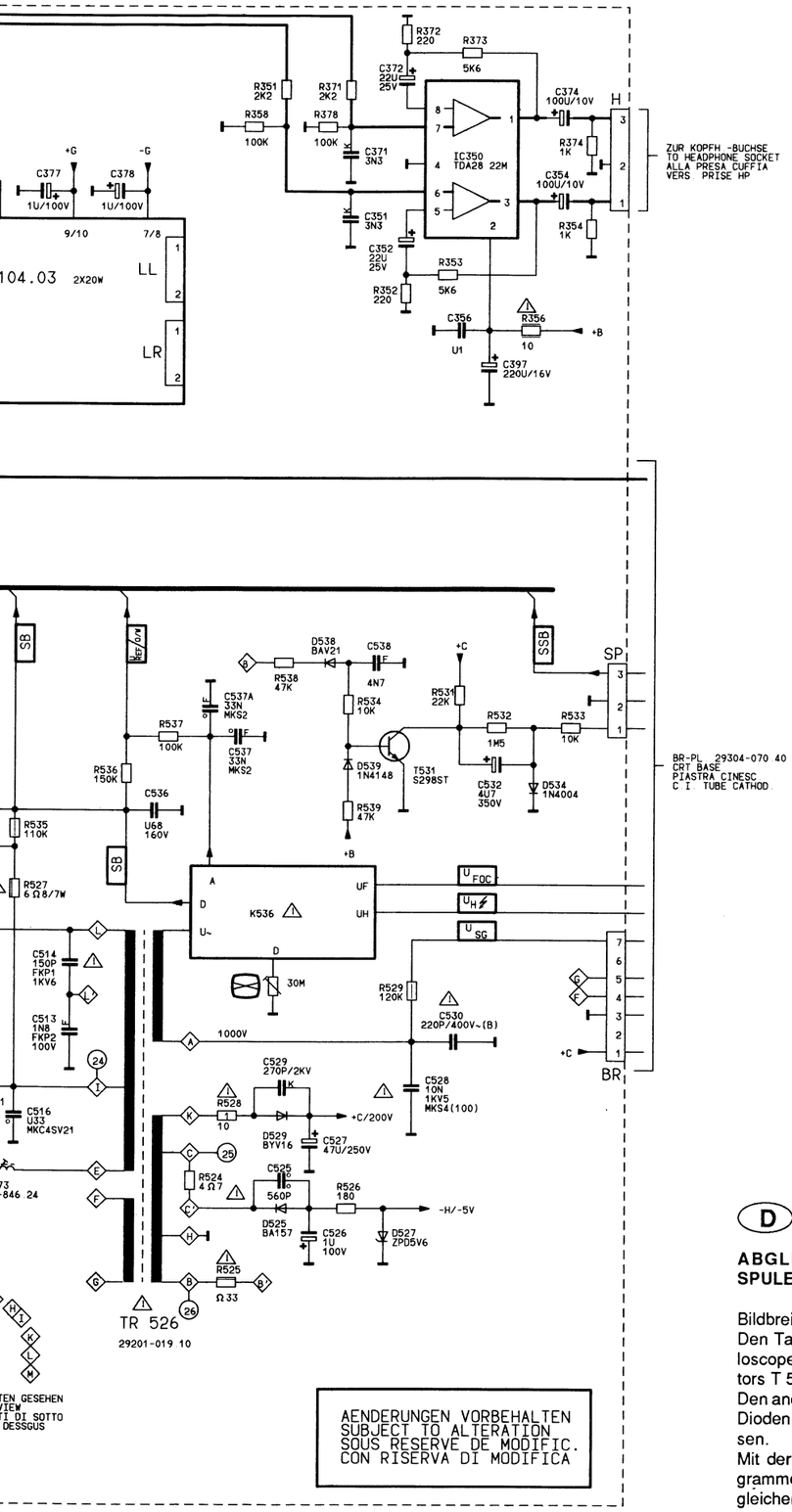
ADJUSTMENT OF THE BRIDGE COIL L 573

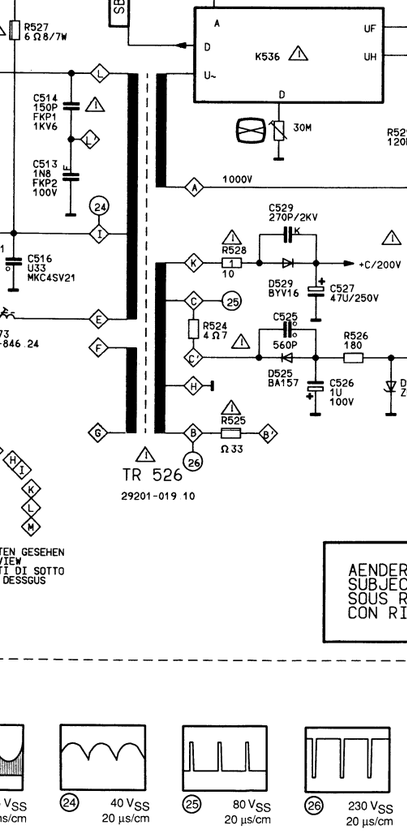
Picture width to minimum.
Then connect one test probe of a twin beam oscilloscope to the collector of transistor T 541 (BU 508 A).
Connect the other test probe to the junction of D 546, D 547.
Adjust the coil L 573 so that both oscillograms have the same pulse width.

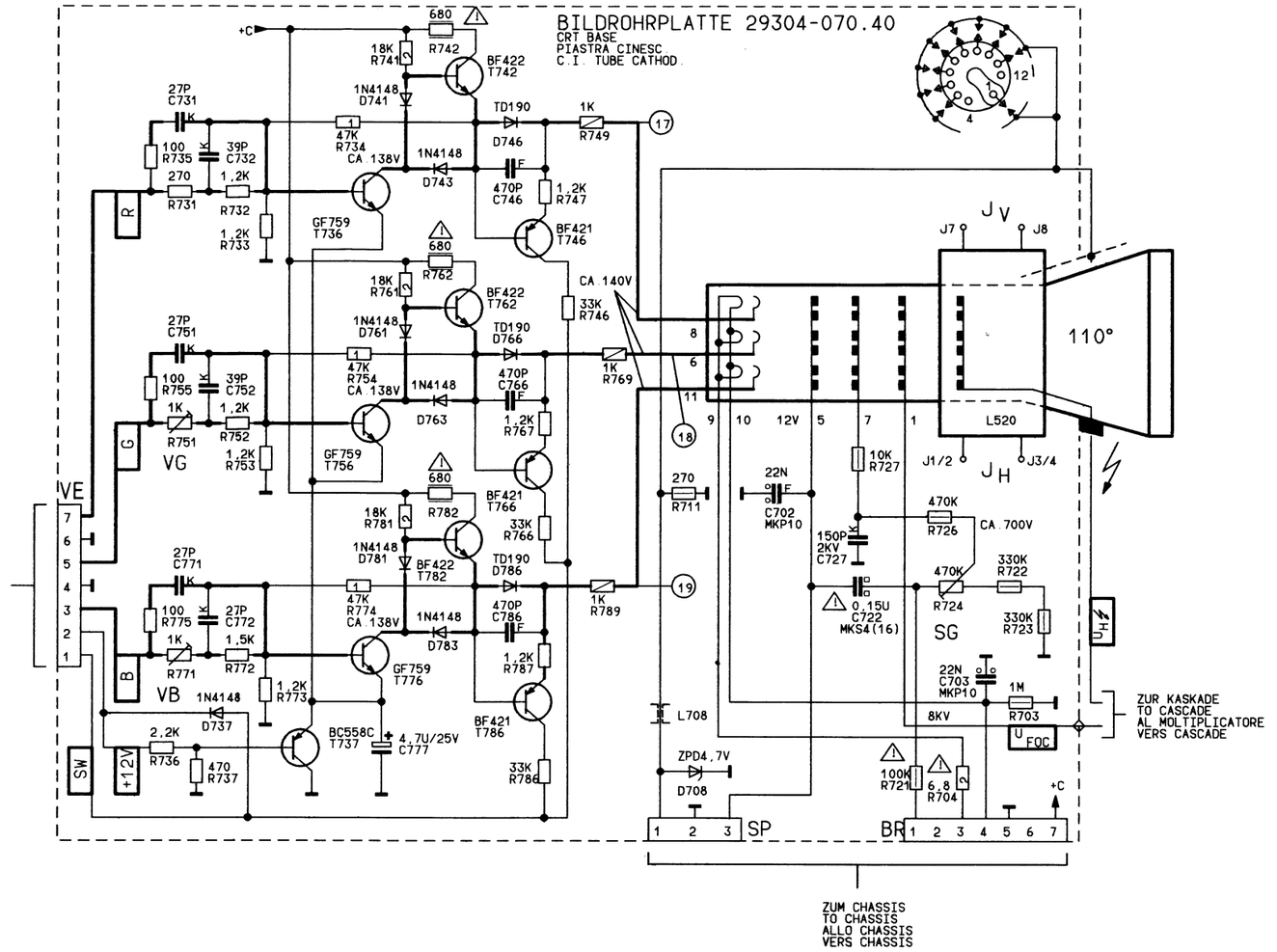
I

TARATURA DELLA PONTE L 573

Portare la largezza de
minimo.
Impiegare un oscillos
traccia collegando ur
lettore del transistor
A) e a'altra tra i diodi
Con la bobina L 57
oscillogrammi per la
za dell'impulso.







(D) ABGLEICH DER BRÜCKEN-SPULE L 573

Bildbreite auf Minimum einstellen,
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Den anderen Tastkopf zwischen den Dioden D 546 und D 547 anschliessen.
Mit der Spule L 573 beide Oszillogramme auf gleiche Impulsbreite abgleichen.

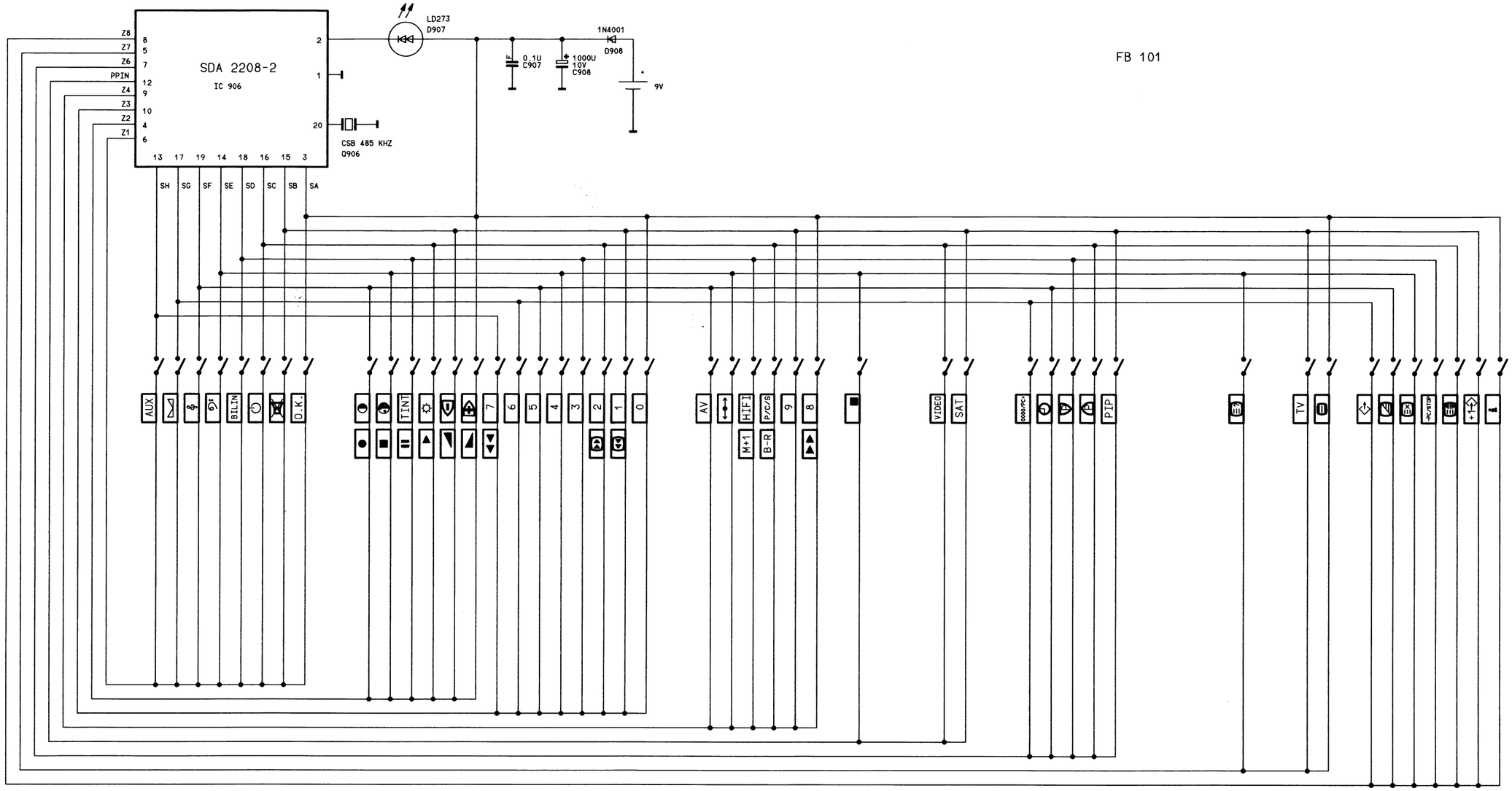
(GB) ADJUSTMENT OF THE BRIDGE COIL L 573

Picture width to minimum.
Then connect one test probe of a twin beam oscilloscope to the collector of transistor T 541 (BU 508 A).
Connect the other test probe to the junction of D 546, D 547.
Adjust the coil L 573 so that both oscillograms have the same pulse width.

(I) TARATURA DELLA BOBINA A PONTE L 573

Portare la largezza dell'immagine sul minimo.
Impiegare un oscilloscopio a doppia traccia collegando una sonda al collettore del transistor T 541 (BU 508 A) e a'altra tra i diodi D 546 e D 547.
Con la bobina L 573 tarare i due oscillogrammi per la stessa larghezza dell'impulso.

FB 101

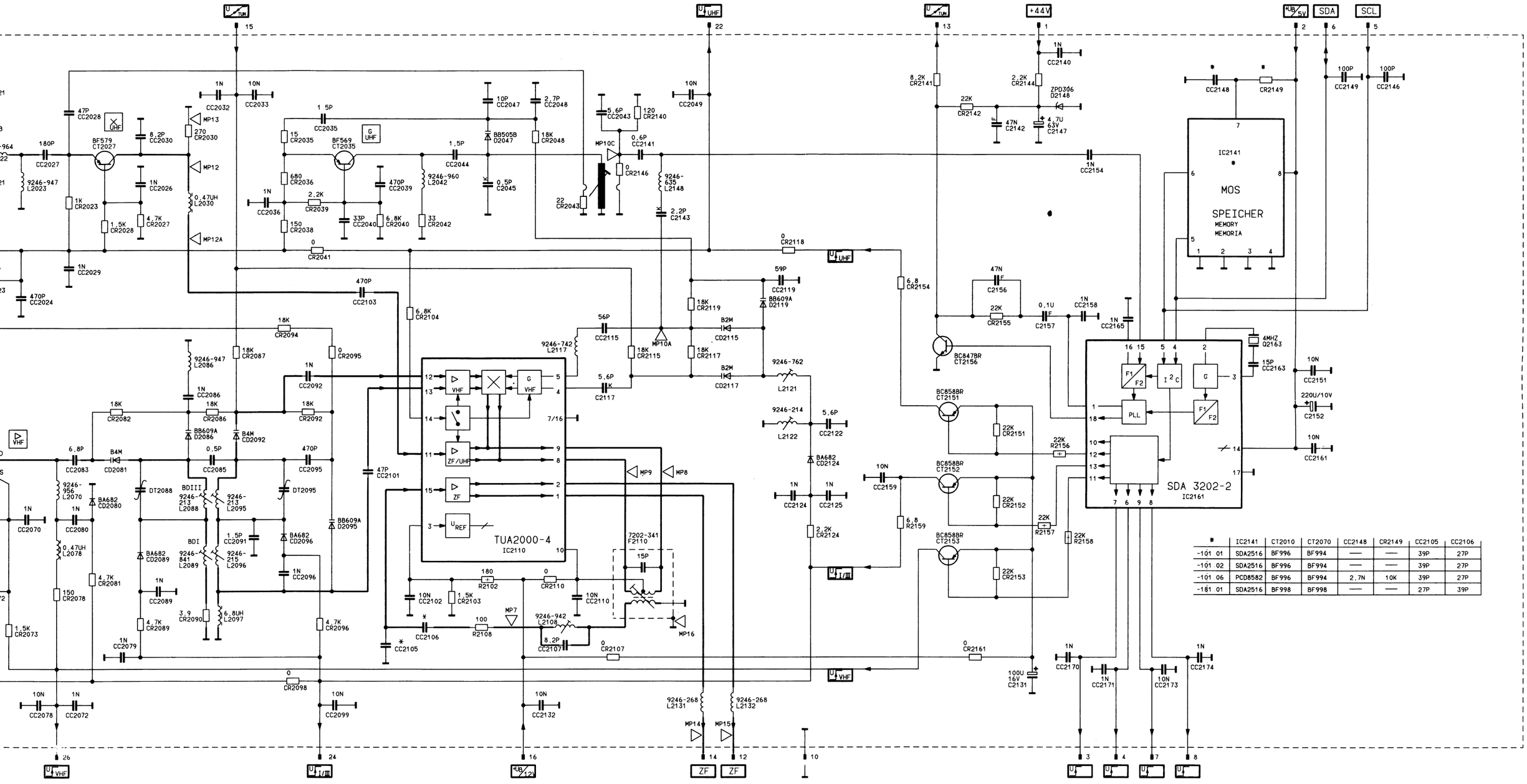


Kein Anp
When rep
Non è ne
sostituzio

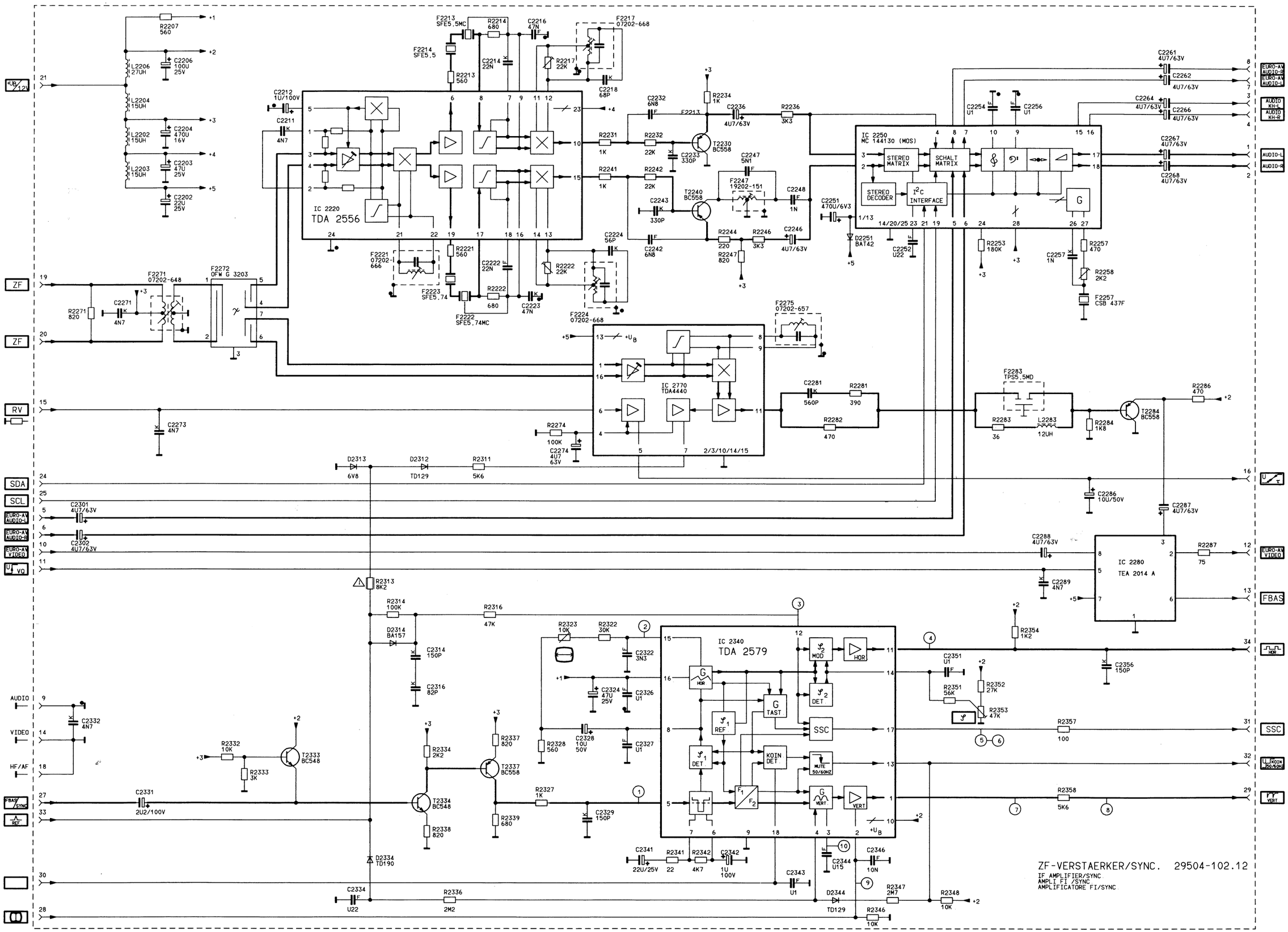
KABEL-TUNER 29504
CABLE TV TUNER
TUNER TV CAVO

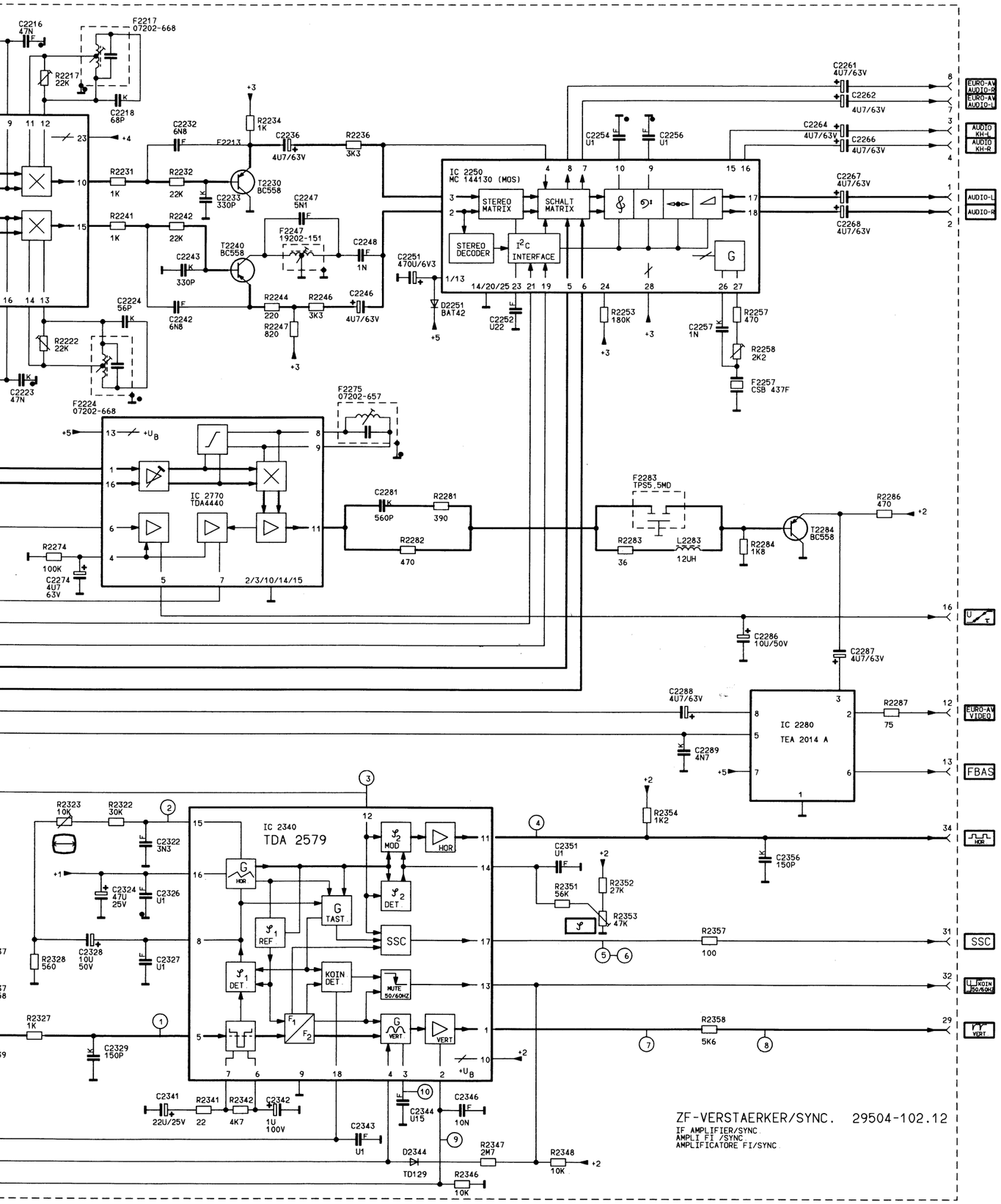
-101.06

Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
Non è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto



*	IC2141	CT2010	CT2070	CC2148	CR2149	CC2105	CC2106
-101 01	SDA2516	BF996	BF994	—	—	39P	27P
-101 02	SDA2516	BF996	BF994	—	—	39P	27P
-101 06	PCD8582	BF996	BF994	2,7N	10K	39P	27P
-181 01	SDA2516	BF998	BF998	—	—	27P	39P


IC 2220
TDA 2556
IC 2250
MC 144130 (MOS)
STEREO MATRIX
SCHALT MATRIX
STEREO DECODER
I²C INTERFACE
IC 2770
TDA4440
IC 2340
TDA 2579
IC 2280
TEA 2014 A
ZF-VERSTAERKER/SYNC. 29504-102.12
IF AMPLIFIER/SYNC
AMPLI FI /SYNC
AMPLIFICATORE FI/SYNC



(D)

ABGLEICH DER ZEILENFREQUENZ UND -PHASE

Zeilenfrequenz:

1. Pin 5, IC 2340 (TDA 2579) nach Masse kurzschließen.
2. Mit Einstellregler R 2323 Bild auf langsames Durchlaufen einstellen.
3. Kurschluß entfernen.

Zeilenphase:

1. Den Bildbreitenregler R 7002 (Ablenk-Baustein) auf Minimum stellen.
2. Mit dem Einstellregler R 2353 den grauen Bildrand symmetrisch zum rechten und linken Bildraster einstellen.
3. Den Bildbreitenregler wieder nach Testbild einstellen.

(GB)

ADJUSTMENT OF LINE FREQUENCY AND -PHASE

Line Frequency:

1. Short circuit Pin 5, IC 2340 (TDA 2579) to chassis.
2. With the adjustment control R 2323, adjust so that the picture runs through slowly.
3. Remove the short circuit.

Line Phase:

1. Set the picture width control R 7002 (Deflection Modul) to minimum.
2. With the adjustment control R 2353, set the grey picture edges to be symmetrical within the right and left picture frame.
3. Reset the picture width control to conform with the test pattern.

(I)

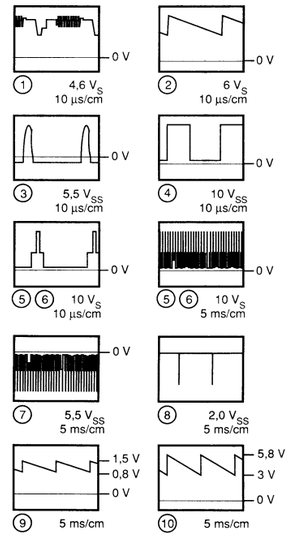
TARATURA DELLA FREQUENZA DI RIGA E DELLA FASE

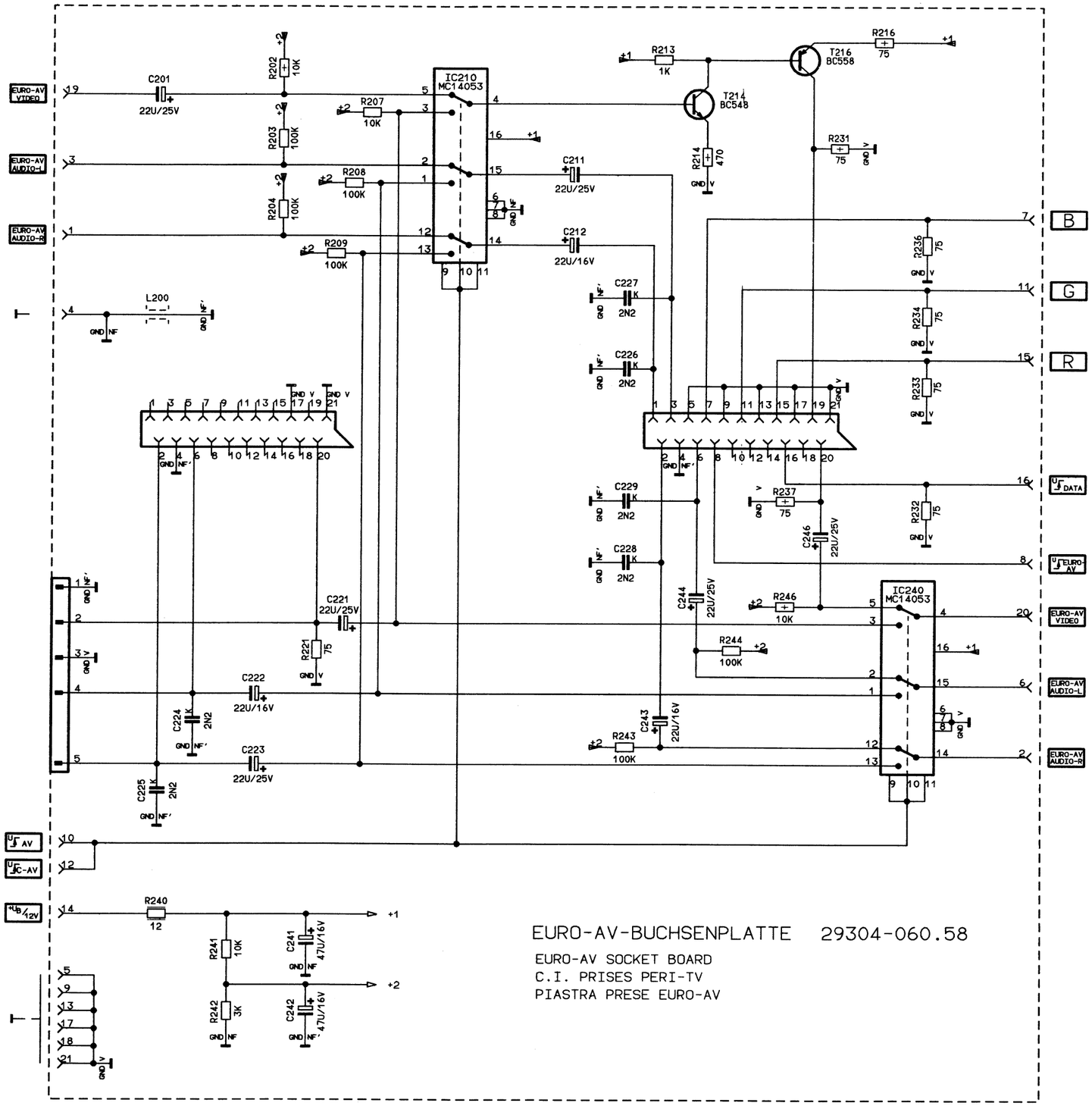
Frequenza di riga:

1. Cortocircuitare verso massa il pin 5, IC 2340 (TDA 2579).
2. Regolare R 2323 finchè l'immagine scorre lentamente.
3. Togliere il cortocircuito.

Fase:

1. Regolare al minimo il regolatore di larghezza R 7002 (Mod. Deflessione).
2. Con R 2353 regolare il bordo grigio dell'immagine simmetricamente al raster d'immagine a destra e a sinistra.
3. Regolare nuovamente in base al monoscopio il regolatore di larghezza.



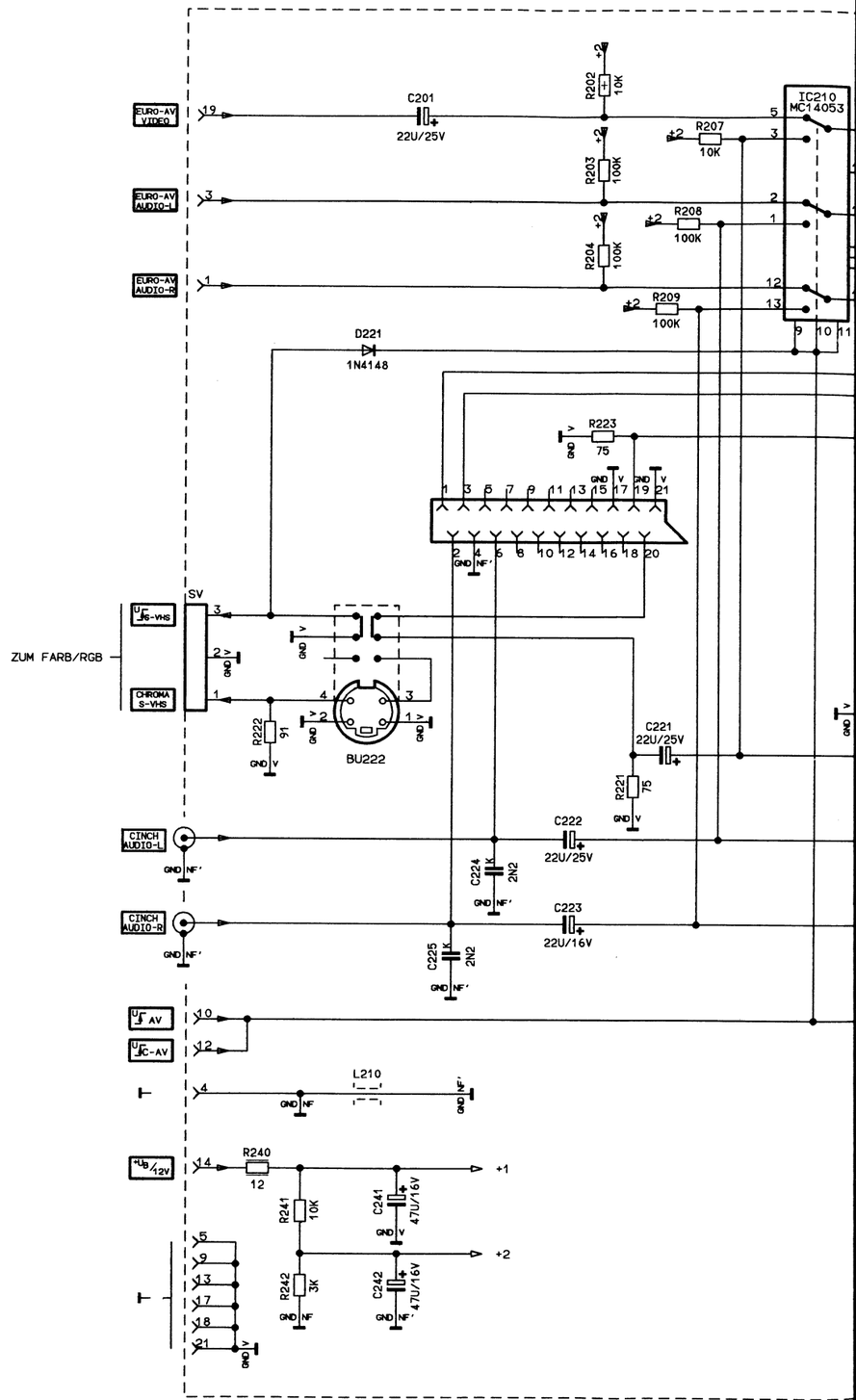


EURO-AV-BUCHSENPLATTE 29304-060.58

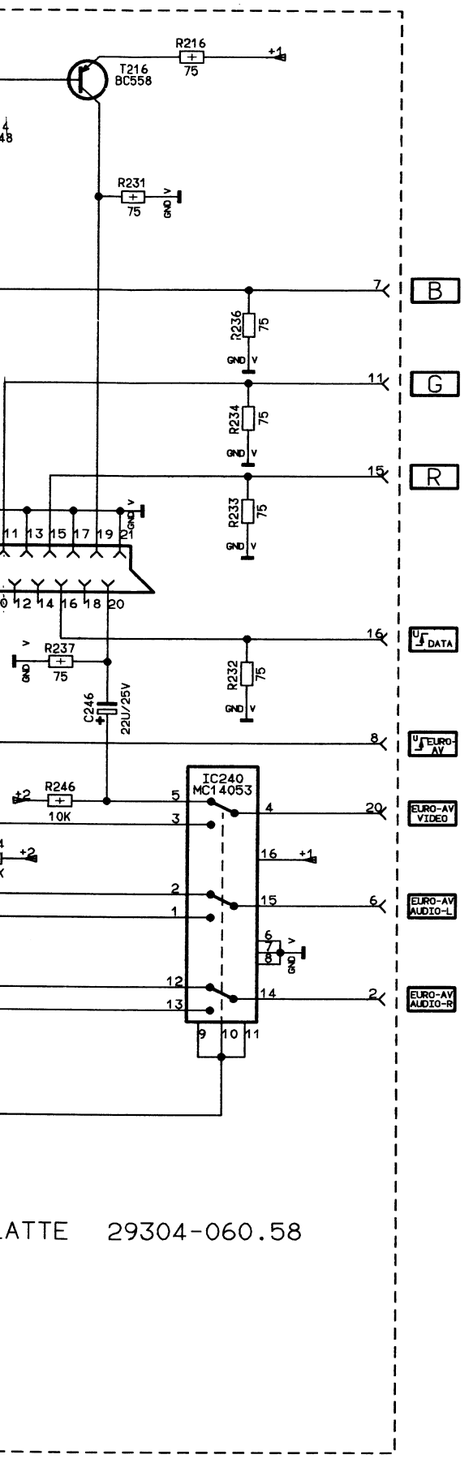
EURO-AV SOCKET BOARD

C.I. PRISES PERI-TV

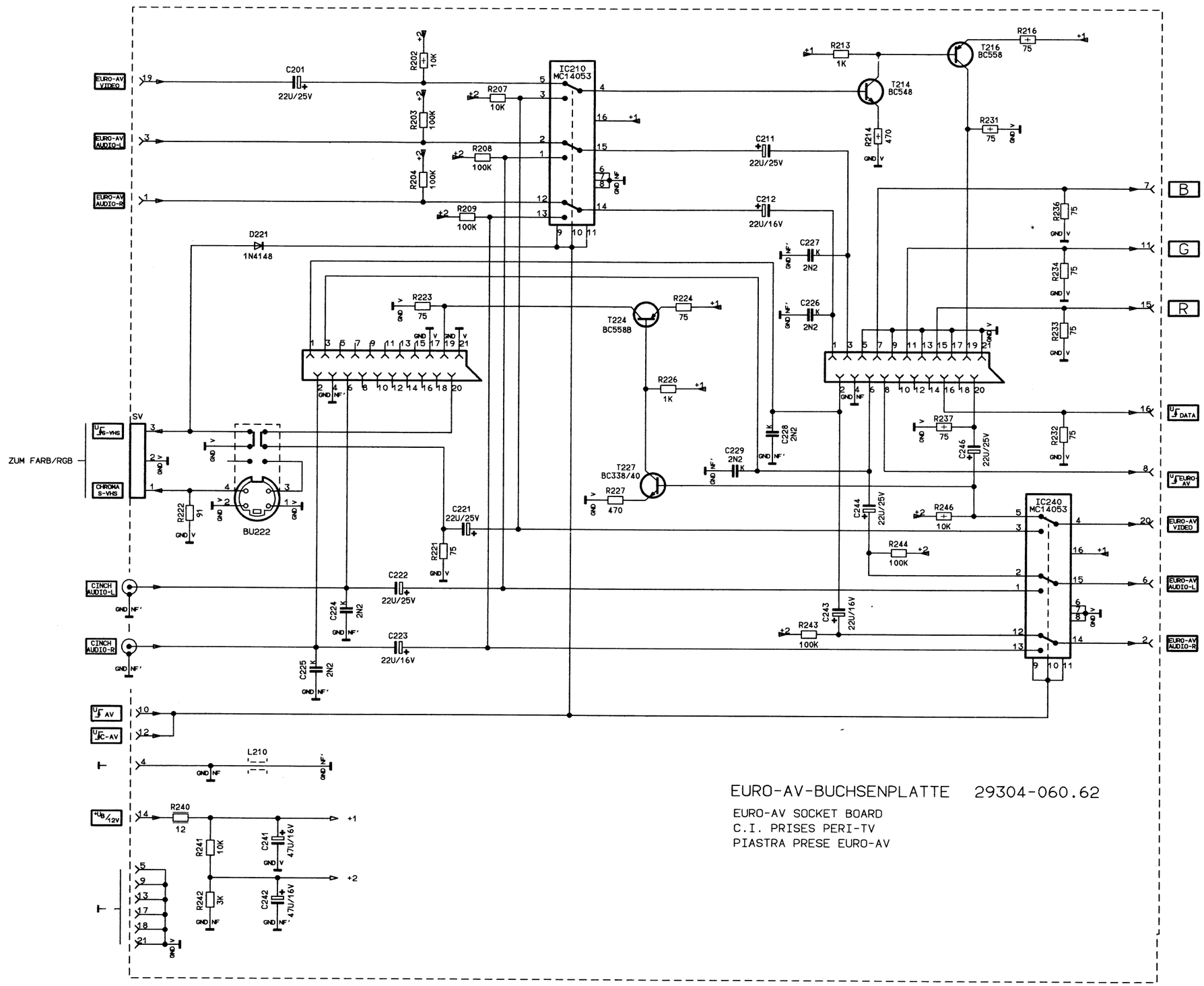
PIASTRA PRESE EURO-AV



Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
Non è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto



LATTE 29304-060.58



EURO-AV-BUCHSENPLATTE 29304-060.62

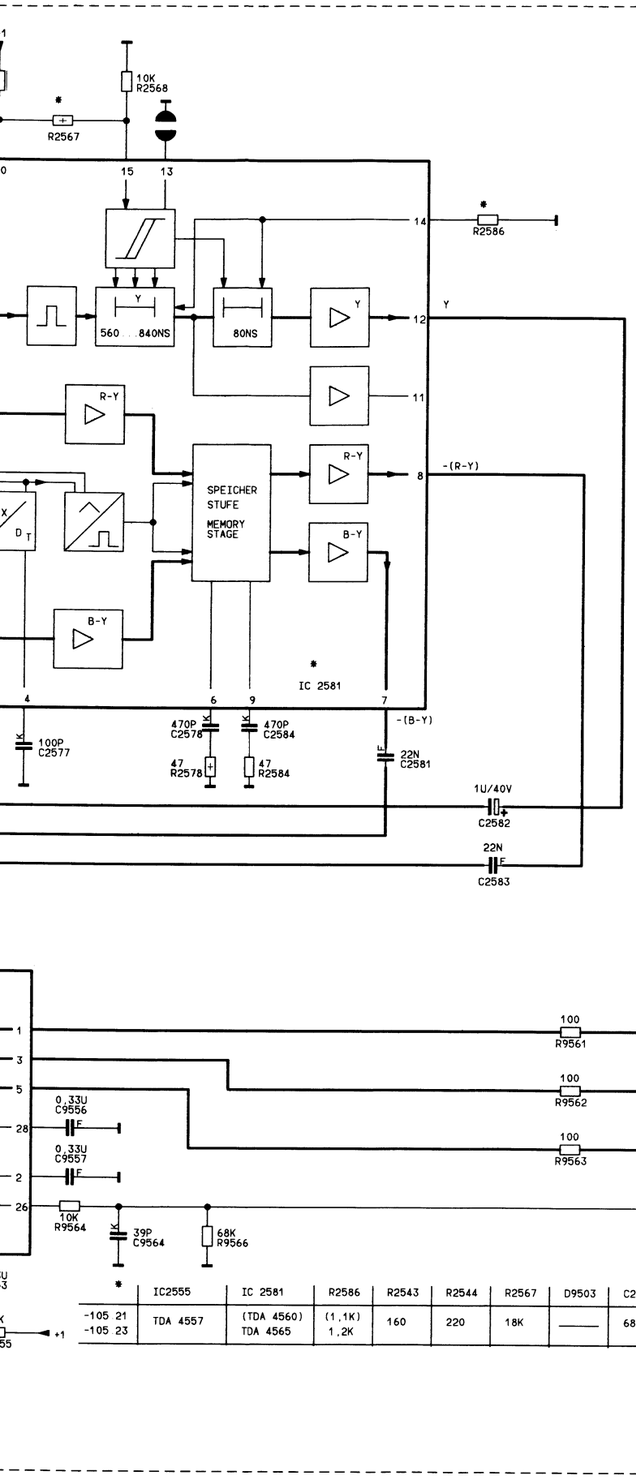
EURO-AV SOCKET BOARD
C.I. PRISES PERI-TV
PIASTRA PRESE EURO-AV

Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
Non è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto

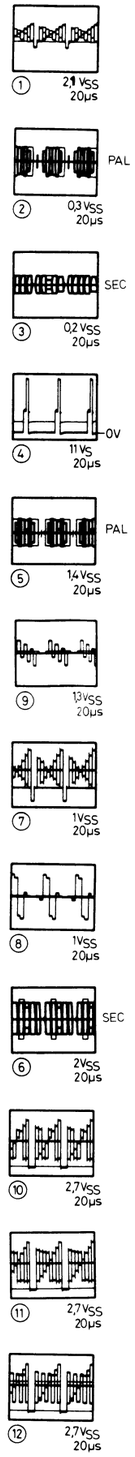
FARB-RGB 29504-105. 23

COLOUR / RGB
COULEUR / RVB
COLORE / RVB

*	IC2555	IC 2581	R2586
-105.21	TDA 4557	(TDA 4560)	(1,1K)
-105.23		TDA 4565	1.2K



	IC2555	IC 2581	R2586	R2543	R2544	R2567	D9503	C2544	C2558	C2558A	C2561	C2561A	C9503
-105 21 -105 23	TDA 4557	(TDA 4560) TDA 4565	(1,1K) 1,2K	160	220	18K	——	680P	180P	——	180P	——	——



(D)

Abgleich Farb/RBG

1. **Weißabgleich**
   - FuBK-Testbild einspeisen.
   - ◑ min., ☼ nom., ◑ max. einstellen.
   - Regler VG und VB (Bildrohrplatte) so einstellen, daß keine Verfärbungen in den Grauwerten sichtbar sind.

2. **Sperrpunktabgleich**
   Eine manuelle Einstellung ist nicht möglich, da die Steckkarte eine automatische Dunkelstromregelung besitzt.
   Kontrolle des Sperrpunkts (Oszilloskop erforderlich):
   - FuBK-Testbild einspeisen.
   - ◑ min., ☼ nom., ◑ min. einstellen.
   - Tastkopf an den Kollektoren der Transistoren T 736, T 756, T 776 anhängen (Bildrohrplatte). Die Schwarzwerte der drei Kathodensignale liegen bei ca. 140 - 150 V.

3. **Einstellungen im Farbkanal**
   - PAL-Testbild einspeisen.
   - ◑ nom., ☼ nom., ◑ max. einstellen.
   - IC-Pin 28 vom TDA 4557 mit +12V verbinden.
   - IC-Pin 17 vom TDA 4557 mit Masse verbinden.
   - Mit Trimmer C 9516 die durchlaufenden Farbbalken zum Stehen bringen.
   - Kurzschlußbrücken entfernen.
   - Tastkopf an MP 12, mit Regler BP und Spule LZ die Doppelbilder des B-Signals zur Deckung bringen.
   - SECAM-Testbild einspeisen.
   - Tastkopf an Pin 1 vom TDA 4557 anschließen, mit Spule DR Nulllinie des (R-Y)-Signals auf Zeilenniveau bringen.
   - Tastkopf an Pin 3 vom TDA 4557 anschließen, mit Spule DB Nulllinie des (B-Y)-Signals auf Zeilentastniveau bringen.
   - Spule F 2521 so einstellen, daß das (B-Y)-Signal keine Überschwinger hat.

(GB)

Color RGB alignment

1. **White level adjustment**
   - Display colour bar test pattern.
   - Set ◑ to min., ☼ to nom., ◑ to max.
   - Adjust presets VG and VB (CTR socket board) so that the picture does not show any colouration.

2. **Adjustment of cut-off point**
   Manual adjustment is not possible, as the circuit board employs an automatic dark current control circuit.
   To check cut-off point (oscilloscope required), proceed as follows:
   - Display colour bar test pattern.
   - Set ◑ to min., ☼ to nom., ◑ to min
   - Connect test probe to collectors of T 736, T 756, T 776 (CRT socket board). The black levels of the three cathode signals should be 140 - 150V.

3. **Adjustments in chroma channel**
   - Display PAL test pattern.
   - Set ◑ to nom., ☼ to nom., ◑ to max.
   - Connect pin 28 of IC TDA 4557 to +12V supply.
   - Connect pin 17 of IC TDA 4557 to chassis.
   - Adjust trimmer C 9516 for stationary pattern in colour bars.
   - Remove wire links.
   - Connect test probe to test point MP 12. Bring the double image produced by the B-signal to coincidence by adjusting the preset BP and the coil LZ.
   - Display SECAM test pattern.
   - Connect test probe to pin 1 of IC TDA 4557.
   - Use coil DR to align zero level of the (R-Y) signal with the line black level.
   - Connect test probe to pin 3 of IC TDA 4557.
   - Use coil DB to align zero level of the (B-Y) signal with the line black level.
   - Adjust coil F 2521 so that the (B-Y) signal is free of overshooting.

(I)

Taratura del Colore/RVB

1. **Taratura del bianco**
   - Applicare un monoscopio FuBK.
   - Regolare ◑ al minimo, ☼ sul valore nominale e ◑ al massimo.
   - Con i regolatori VG e VB (piastra cinescopio) eliminare eventuali macchie di colore.

2. **Taratura del punto di blocco**
   Una regolazione manuale non è possibile, poiché questa scheda incorpora una regolazione automatica della corrente d'interdizione.
   Controllo del punto di blocco (é necessario un oscilloscopio):
   - Applicare un monoscopio FuBK.
   - Regolare ◑ al minimo, ☼ sul valore nominale e ◑ al minimo.
   - Collegare la sonda ai collettori dei transistori T 736, T 756, T 776 (piastra cinescopio). Valore nero dei tre segnali catodici ca. 140 - 150V.

3. **Regolazione del canale colore**
   - Applicare un monoscopio PAL.
   - Regolare ◑ al nominale, ☼ sul valore nominale e ◑ al massimo.
   - Sull'integrato TDA 4557 collegare pin 28 a +12V.
   - Sull'integrato TDA 4557 collegare pin 17 a massa.
   - Con C 9516 fermare le barre colorate scorrevoli.
   - Togliere i cortocircuiti.
   - Collegare la sonda a MP 12, con il regolatore BP e la bobina LZ portare a copertura le immagini doppie del segnale B.
   - Applicare un monoscopio SECAM.
   - Collegare la sonda al pin 1 dell'integrato TDA 4557, con la bobina DR portare la linea zero del segnale (R-Y) sul livello della frequenza di riga.
   - Collegare la sonda al pin 3 dell'integrato TDA 4557, con la bobina DB portare la linea zero del segnale (B-Y) sul livello della frequenza di riga.
   - La bobina F 2521 applicarla così in modo che il segnale (B-Y) sia chiaro.

D

1. Weißabgleich
- FuBK-Testbild einspeisen.
- ◑ min., ○ nom., ◑ max. einstellen.
- Regler VG und VB (Bildrohrplatte) so einstellen, daß keine Verfärbungen in den Grauwerten sichtbar sind.

2. Sperrpunktabgleich
Eine manuelle Einstellung ist nicht möglich, da die Steckkarte eine automatische Dunkelstromregelung besitzt. Kontrolle des Sperrpunkts (Oszilloskop erforderlich).
- FuBK-Testbild einspeisen.
- ◑ min., ○ nom., ◑ min. einstellen.
- Tastkopf an den Kollektoren der Transistoren T 736, T 756, T 776 anhängen (Bildrohrplatte). Die Schwarzwerte der drei Kathodensignale liegen bei ca. 140- 150 V.

3. Einstellungen im Farbkanal
- PAL-Testbild einspeisen.
- ◑ nom., ○ nom., ◑ max. einstellen.
- IC-Pin 28 vom TDA 4557 mit +12V verbinden.
- IC-Pin 17 vom TDA 4557 mit Masse verbinden.
- Mit Trimmer C 5204 die durchlaufenden Farbbalken zum Stehen bringen.
- Kurzschlußbrücken entfernen.
- Tastkopf an MP 12, mit Regler BP und Spule LZ die Doppelbilder des B-Signals zur Deckung bringen.
- SECAM-Testbild einspeisen.
- Tastkopf an Pin 1 vom TDA 4557 anschließen, mit Spule DR Nulllinie des (R-Y)-Signals auf Zeilenniveau bringen.
- Tastkopf an Pin 3 vom TDA 4557 anschließen, mit Spule DB Nulllinie des (B-Y)-Signals auf Zeilentastniveau bringen.
- Spule F 5031 so einstellen, daß das (B-Y)-Signal keine Überschwinger hat.

GB

1. White level adjustment
- Display colour bar test pattern.
- Set ◑ to min., ○ to nom., ◑ to max.
- Adjust presets VG and VB (CTR socket board) so that the picture does not show any colouration.

2. Adjustment of cut-off point
Manual adjustment is not possible, as the circuit board employs an automatic dark current control circuit.
To check cut-off point (oscilloscope required), proceed as follows:
- Display colour bar test pattern.
- Set ◑ to min., ○ to nom., ◑ to min
- Connect test probe to collectors of T 736, T 756, T 776 (CRT socket board).The black levels of the three cathode signals should be 140-150V.

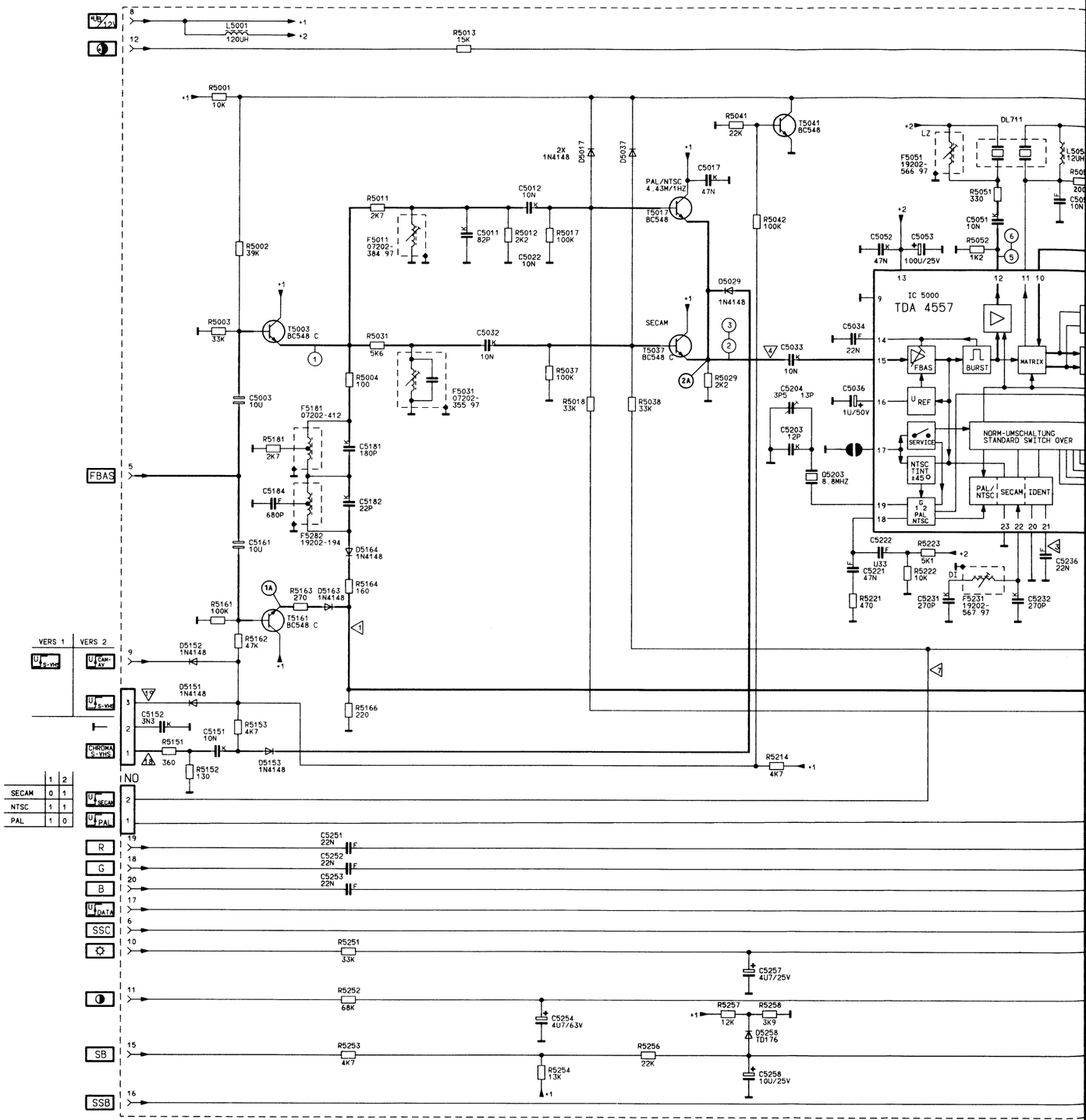
3. Adjustments in chroma channel
- Display PAL test pattern.
- Set ◑ to nom., ○ to nom., ◑ to max.
- Connect pin 28 of IC TDA 4557 to +12V supply.
- Connect pin 17 to IC TDA 4557 to chassis.
- Adjust trimmer C 5204 for stationary pattern in colour bars.
- Remove wire links.
- Connect test probe to test point MP 12. Bring the double image produced by the B-signal to coincidence by adjusting the preset BP and the coil LZ.
- Display SECAM test pattern.
- Connect test probe to pin 1 of IC TDA 4557.
- Use coil DR to align zero level of the (R-Y) signal with the line black level.
- Connect test probe to pin 3 of IC TDA 4557.
- Use coil DB to align zero level of the (B-Y) signal with the line black level.
- Adjust coil F 5031 so that the (B-Y) signal is free of overshooting.

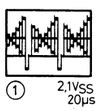
I

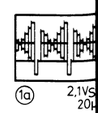
1. Taratura del bianco
- Applicare un monoscopio FuBK.
- Regolare ◑ al minimo, ○ sul valore nominale e ◑ al massimo.
- Con i regolatori VG e VB (piastra cinescopio) eliminare eventuali macchie di colore.

2. Taratura del punto di blocco
Una regolazione manuale non è possibile, poiché questa scheda incorpora una regolazione automatica della corrente d'interdizione.
Controllo del punto di blocco (é necessario un oscilloscopio):
- Applicare un monoscopio FuBK.
- Regolare ◑ al minimo, ○ sul valore nominale e ◑ al minimo.
- Collegare la sonda ai collettori dei transistori T 736, T 756, T 776 (piastra cinescopio).
Valore nero dei tre segnali catodici ca. 140-150V.

3. Regolazione del canale colore
- Applicare un monoscopio PAL.
- Regolare ◑ al nominale, ○ sul valore nominale e ◑ al massimo.
- Sull'integrato TDA 4557 collegare pin 28 a +12V.
- Sull'integrato TDA 4557 collegare pin 17 a massa.
- Con C 5204 fermare le barre colorate scorrevoli.
- Togliere i cortocircuiti.
- Collegare la sonda a MP 12, con il regolatore BP e la bobina LZ portare a copertura le immagini doppie del segnale B.
- Applicare un monoscopio SECAM.
- Collegare la sonda al pin 1 dell'integrato TDA 4557, con la bobina DR portare la linea zero del segnale (R-Y) sul livello della frequenza di riga.
- Collegare la sonda al pin 3 dell'integrato TDA 4557, con la bobina DB portare la linea zero del segnale (B-Y) sul livello della frequenza di riga.
- La bobina F 5031 applicarla cosi in modo che il segnale (B-Y) sia chiaro.







FARB / RGB 29504-105.31

COLOUR / RGB
COULEUR / RVB
COLORE / RVB

D 5052
1N 4148

T5041
BC548

DL711

F5051
19202-566.97

L5054
12UH

R5056
220

R5054
200

C5054
10N

R5051
330

C5051
10N

C5052
47N

C5053
100U/25V

R5052
1K2

R5057
120K

F5062
19202-566.97
DR

C5061
68P

C5062
180P

R5062
470

C5063
22P

F5072
19202-566.97
DB

C5071
68P

C5072
180P

R5072
820

C5073
22P

R 5083
18K

C5084
330P

C5082
100P

C5083
100P

IC 5000
TDA 4557

SECAM REF
FBAS
BURST
MATRIX
SECAM DEEMPH COL KILL
U REF
SERVICE
NORM-UMSCHALTUNG
STANDARD SWITCH OVER
ZWANG
ENFORCE
NTSC TINT ±45°
G 1/2 PAL NTSC
PAL/ NTSC
SECAM
IDENT
SSC

C5034
22N

C5036
1U/50V

Q5203
8,8MHZ

C5222
U33

R5223
5K1

C5221
47N

R5222
10K

R5221
470

C5231
270P

F5231
19202-567.97

C5232
270P

C5236
22N

R5238
4K7

C5074
220P

C5076
220P

C5077
1U/50V

C5078
1U/50V

C5081
4U7/25V

R5082
30K

R5081
18K

R5088
4Ω7

C5088
47U 25V

C5087
10N

C5086
10N

IC 5100
TDA 4565 V4
V4/S1

SPEICHER STUFE
560
840NS
80NS

C5094
4U7/25V

C5093
22N

C5091
470P

R5091
47

C5092
470P

R5092
47

C5096
22N

R5097
1K2 (V4)
1K1 (V4/S1)

C5098
1U/50V

C5101
220U/16V

C5102
22N

C5103
22N

C5104
22N

IC 5200
TDA 3505

SSC
ZAEHLER COUNTER
COMP
MATRIX
MS

C5111
22U/16V

C5112
U33

C5114
U33

C5116
U33

R5112
10K

C5113
39P

R5113
68K

R5114
100

R5116
100

R5118
100

R5103
560

SW
+12V
B
G
R

BILDROHRPLATTE
CRT BASE
C I TUBE CATHOD
PIASTRA CINESC

C5261
47N

C5262
22P

R5101
1K

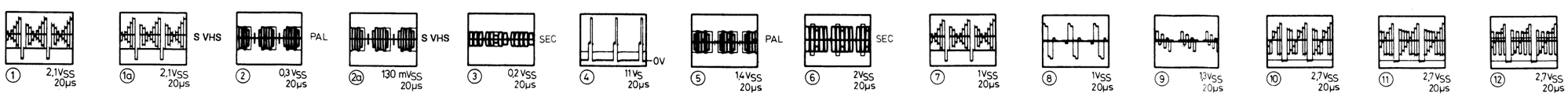
L5262
120UH

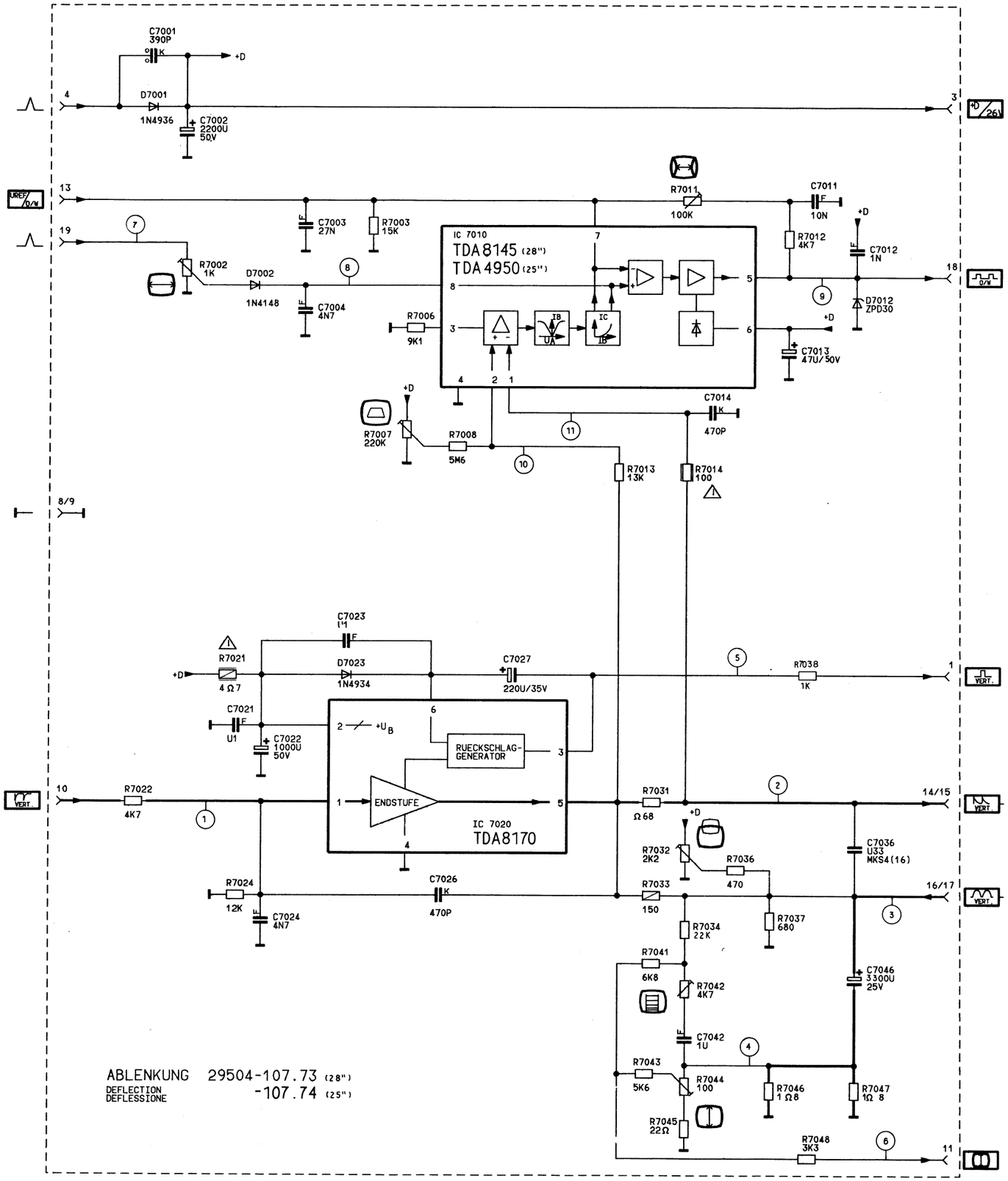
R5262
470

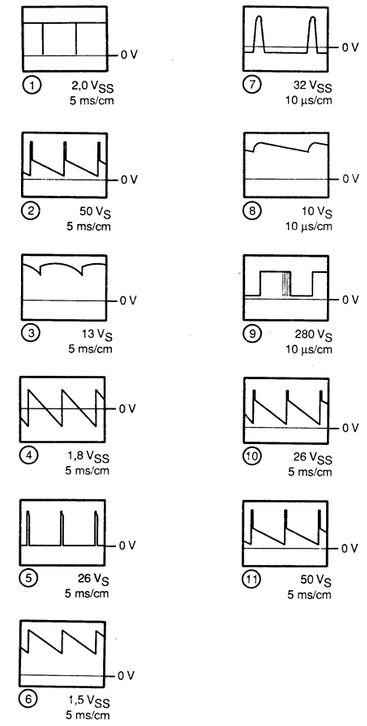
T5260
BC558 B

R5263
1K3

C5263
560P
2KV


① 2,1VSS 20µs
①a 2,1VSS 20µs S VHS
② 0,3 VSS 20µs PAL
②a 130 mVSS 20µs S VHS
③ 0,2 VSS 20µs SEC
④ 11 VS 20µs 0V
⑤ 14 VSS 20µs PAL
⑥ 2VSS 20µs SEC
⑦ 1VSS 20µs
⑧ 1VSS 20µs
⑨ 1,3VSS 20µs
⑩ 2,7VSS 20µs
⑪ 2,7VSS 20µs
⑫ 2,7VSS 20µs

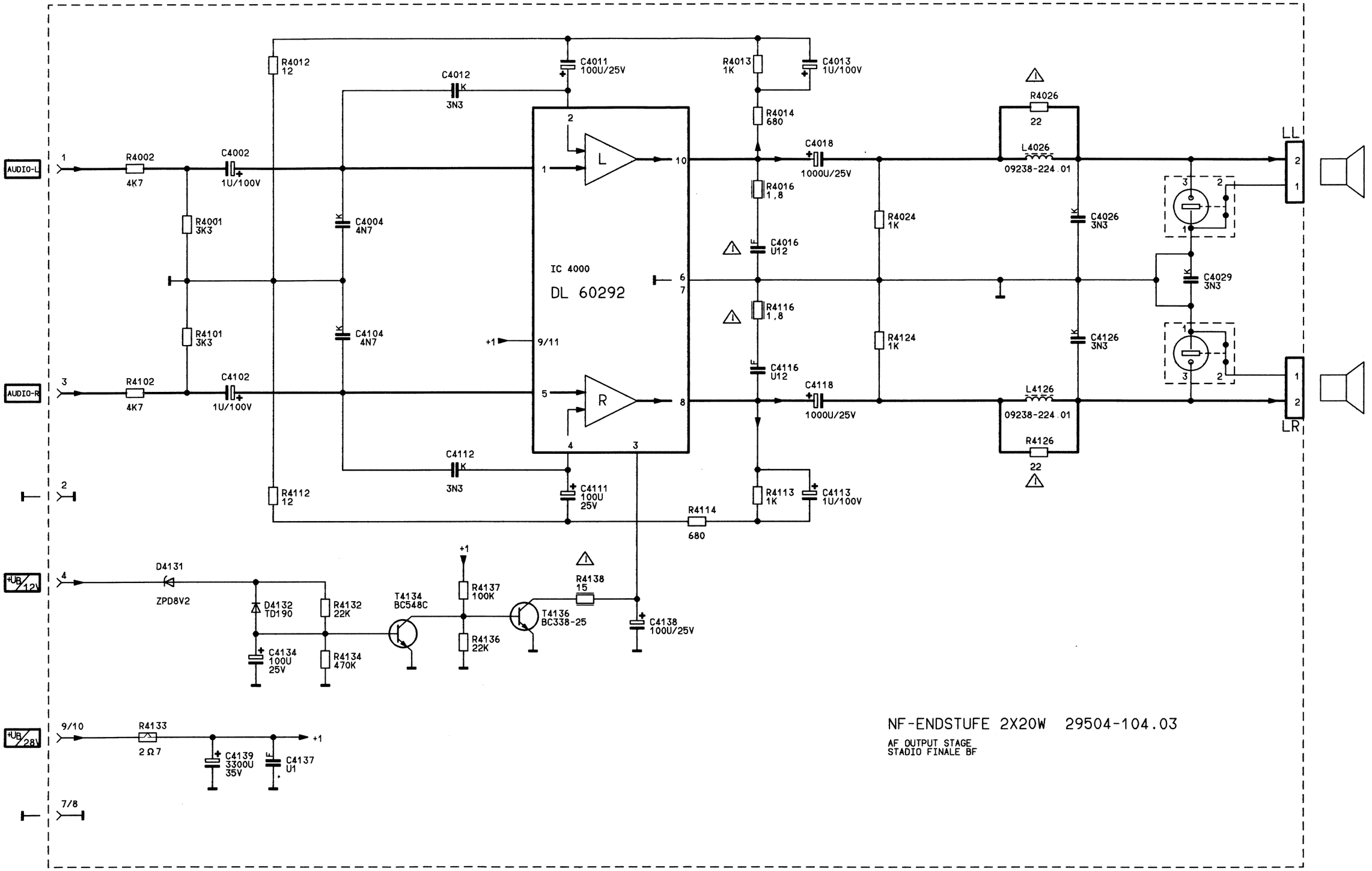



0 V
1 2,0 VSS 5 ms/cm
2 50 VS 5 ms/cm
3 13 VS 5 ms/cm
4 1,8 VSS 5 ms/cm
5 26 VS 5 ms/cm
6 1,5 VSS 5 ms/cm
7 32 VSS 10 µs/cm
8 10 VS 10 µs/cm
9 280 VS 10 µs/cm
10 26 VSS 5 ms/cm
11 50 VS 5 ms/cm

Anpassungsabgleich bei Austausch der Steckkarte

Matching alignment necessary when replacing the plug board

Taratura di attamento dopo la sostituzione di una scheda ad innesto



NF-ENDSTUFE 2X20W 29504-104.03

AF OUTPUT STAGE
STADIO FINALE BF

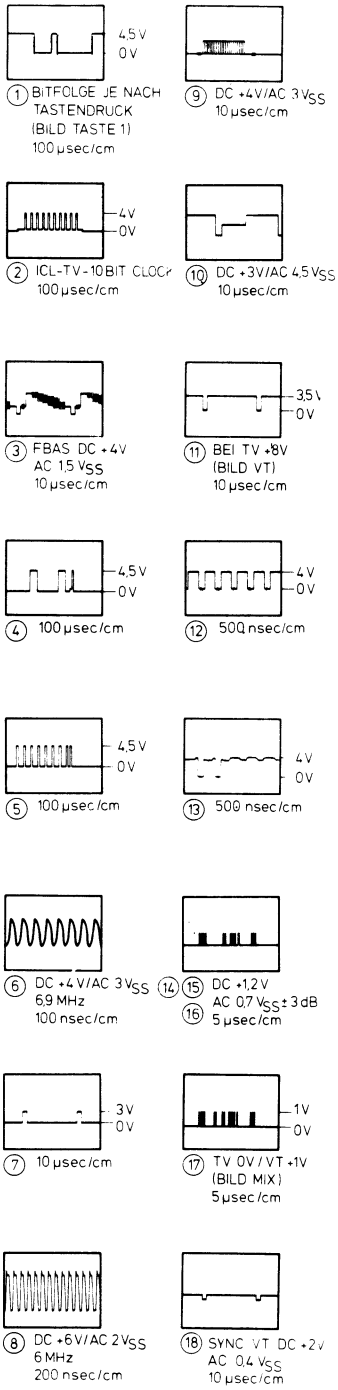
Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
Non è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto

SIEMENS

VIDEOTEXT - DECODER 29504-108.08

TELETEXT DECODER
DECODER TELEVIDEO

*	IC2830	C2831	R2831
	PCD 8582 E PROM(2K)	2.7N	10K
	SDA 2526 E²PROM(2K)	—	—
	X 2402 E²PROM(2K)	—	—


4,5 V
0 V
① BITFOLGE JE NACH TASTENDRUCK (BILD TASTE 1) 100 µsec/cm
⑨ DC +4 V/AC 3 V_{SS} 10 µsec/cm
4 V
0 V
② ICL-TV-10 BIT CLOCK 100 µsec/cm
⑩ DC +3 V/AC 4,5 V_{SS} 10 µsec/cm
③ FBAS DC +4 V AC 1,5 V_{SS} 10 µsec/cm
⑪ BEI TV +8 V (BILD VT) 10 µsec/cm
4,5 V
0 V
④ 100 µsec/cm
4 V
0 V
⑫ 500 nsec/cm
4,5 V
0 V
⑤ 100 µsec/cm
4 V
0 V
⑬ 500 nsec/cm
⑥ DC +4 V/AC 3 V_{SS} 6,9 MHz 100 nsec/cm
⑭ ⑮ DC +1,2 V AC 0,7 V_{SS} ± 3 dB ⑯ 5 µsec/cm
3 V
0 V
⑦ 10 µsec/cm
1 V
0 V
⑰ TV 0 V / VT +1 V (BILD MIX) 5 µsec/cm
⑧ DC +6 V/AC 2 V_{SS} 6 MHz 200 nsec/cm
⑱ SYNC VT DC +2 V AC 0,4 V_{SS} 10 µsec/cm

GES
SWI
COM

(D)

VT - Nachrüstung und Anpassungsabgleich
Beim Nachrüsten der Videotextsteckkarte muß der Kurzschlussstecker zwischen Kontakt 4 und 6 entfernt werden.

Der Einsteller R 2857 steht bei der Auslieferung auf Linksanschlag (kleinste Höhenanhebung, ca 2 dB). Treten trotz einwandfreiem Antennensignal Zeichenfehler auf, R 2857 langsam nach rechts verstellen, bis Fehler verschwinden. Nicht weiterdrehen, da die Fehlerhäufigkeit wieder zunehmen kann.
Während des Abgleiches ist es notwendig, die Seite 199 ständig neu anzuwählen, da nur so die Seite neu eingelesen wird und eine Beurteilung der Fehlerschwelle möglich ist.

(GB)

Teletext Instalation and matching adjustment.
When fitting the Teletext plug-in board, the shorting plug on contact 4 and 6 has to be removed.

The control R 2857 is set in the fully anti clockwise position when the unit is delivered (smallest treble boost: approx. 2dB). If, with a perfect aerial signal character faults occur, turn R 2857 slowly clockwise until the faults disappear. Do not turn R 2857 up any further as error rate may increase again.
Page 199 must always be selected a new during the adjustment, as only this effects a new read-in of the page making it possible to evaluate the error level.

(I)

Montaggio e taratura d'addatamento della scheda ad innesto
Nel montare la scheda televideo togliere i cortocircuito la contatto 4 e 6.

IL regolatore R 2857 viene fornito col cursore girato completamente all'estrema sinistra (minima esaltazione delle alte frequenze, ca. 2 dB). Se si manifestano errori di carattere, nonostante un perfetto segnale d'antenna, girare lentamente il cursore di R 2857 verso destra fino ad eliminare gli errori. Non girarlo oltre può riaumentare la presenza degli errori.
Durante la taratura è necessario selezionare ripetutamente la pagina-199, poiché solo cosi è possibile una nouva immissione della pagina ed una valutazione della soglia degli errori.